

# **NATIONAL TB PROGRAMME AND LABORATORY MANAGERS MEETING IN THE WESTERN PACIFIC REGION**

**Cebu, Philippines**

**3 to 6 December 2002**



**WORLD HEALTH ORGANIZATION**

**Western Pacific Regional Office**

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# EXECUTIVE SUMMARY

## 1. INTRODUCTION

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A tuberculosis (TB) crisis was declared in the Western Pacific Region in 1999. The Region has seven countries with high TB burden, covering almost 30% of the global TB burden. To respond to the TB crisis, the Special Project to Stop TB was established in the Western Pacific Regional Office. The objective of the Stop TB Special Project is to achieve 100% Region-wide directly observed treatment, short-course (DOTS) coverage by the year 2005. The goal is to reduce the prevalence and mortality due to TB by 50% in the year 2010.

The third meeting of the TB Technical Advisory Group (TAG) in Osaka, Japan, in 2002 concluded that a strong foundation had been built for the expansion of DOTS in the Region. DOTS coverage is increasing and the treatment results are improving. However, the Regional targets cannot be met without accelerating the implementation of the DOTS strategy. To ensure acceleration, several aspects are important: the rapid expansion of DOTS to new areas; improvement of the quality of TB services in DOTS areas; and strengthening the quality control of TB laboratory services.

Managers of National TB Programmes (NTPs) in the seven countries with a high burden of TB (Cambodia, China, Lao People's Democratic Republic, Mongolia, Papua New Guinea, the Philippines and Viet Nam) need to meet regularly to discuss progress and constraints in the implementation and expansion of the DOTS strategy if the Regional targets are to be achieved by 2005. In addition, NTP managers need a forum to share their experiences and discuss technical issues in TB control. In view of the key role of the TB laboratory services in the DOTS strategy, both TB Programme managers and laboratory managers from the countries with a high TB burden were invited for a joint meeting.

The meeting for TB Programme Managers and Laboratory Managers in the seven high TB burden countries took place from 3 to 6 December 2002 in Cebu, Philippines and was hosted by the Department of Health of the Philippines (see Annex 1 for timetable of meeting). A total of 68 participants, experts, observers and WHO secretariat (see Annex 2 for list of participants), exchanged views and experiences during four days of intensive discussions.

The objectives for TB Programme managers were to:

- (1) review the DOTS implementation status in the high TB burden countries with regard to progress towards achieving national and Regional targets;
- (2) determine options for dealing with emerging issues, including multi-drug resistance (MDR), Public-Private Mix DOTS (PPMD) and TB-HIV;
- (3) discuss the specific issues related to TB drug supply management;
- (4) discuss technical issues on quality assurance of sputum-smear microscopy in a joint session with the “First Meeting on TB Laboratories in the Western Pacific Region;” and
- (5) develop a national plan of action for 2003-2004 to accelerate DOTS expansion and to sustain high quality TB services.

The objectives for laboratory managers were to:

- (1) review the current status of TB laboratory services in the Western Pacific Region, including the relationship of these services to National Tuberculosis Programmes;
- (2) provide an update on the progress of the Stop TB Special Project;
- (3) discuss technical issues on quality assurance, drug resistance surveillance and development of human resource capacity; and
- (4) prepare country plans of action to strengthen laboratory services, focusing on quality assurance of sputum smear microscopy in the context of DOTS.

## 2. CONCLUSIONS AND MAIN RECOMMENDATIONS

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### 2.1 Progress of DOTS Implementation in the Western Pacific Region

More than two-thirds of the population in the Region has access to DOTS. With only three years left, the Region is faced with a considerable challenge to provide the remaining one-third of its population with access to DOTS. The Regional case detection rate for TB (all forms) was 40% in 2001. The trend of case notification over the last five years indicates stagnation in the rate of notified TB cases (all forms and smear-positive cases). It is clear that with a case detection rate of 40%, a significant number of patients are not notified (and possibly also not diagnosed). The meeting concluded that with respect to the cure rate, the Region is on track towards the 2005 target. However, DOTS coverage has not progressed enough and case detection in the Region is severely lagging, especially in non-DOTS areas.

#### *Recommendation:*

- Countries and WHO are requested to urgently address the key constraints preventing acceleration of DOTS implementation and achieving the Regional targets by 2005.

### 2.2 Laboratory Issues

The recently published international consensus document *External Quality Assessment (EQA) of Sputum Smear Microscopy* has been developed as a reference for developing external quality assessment. Current quality assessment practice often involves rechecking of an unnecessarily large number of slides, especially in high TB burden areas, resulting in inefficient use of time and human resources. The new EQA guidelines aim to reduce this inefficiency and at the same time to improve the effectiveness of sputum microscopy networks. The meeting found the draft regional quality assurance guidelines, based on the new EQA document, to be a comprehensive, scientifically sound, practical guide for implementation of quality assurance (QA) at the country level.

Participants were provided with an update on the situation of multi-drug resistance (MDR) in the Region. While MDR has not reached epidemic proportions, a number of so-called “hot spots” of MDR have already been identified in the Region, including some areas in China, where MDR rates are relatively high. For this reason, activities related to drug resistance surveillance will need to be stepped up.



Participants were pleased to note the opportunity that was offered by this meeting for dialogue and exchange of ideas between programme and laboratory staff. This will strengthen and motivate the TB laboratory service.

*Recommendations:*

- Regional guidelines on QA incorporating both quality control and EQA should be finalized, as a priority of WPRO.
- Communication between the NTP and the laboratory network should be strengthened to facilitate implementation and ensure sustainability of QA activities.
- Blinded slide re-checking supported by supervisory visits to peripheral laboratories are the preferred EQA activities in countries with a high burden of TB.
- National laboratory staff are advised to review the QA situation in their own countries and adapt the Regional QA guidelines as necessary to strengthen their national QA systems. QA protocols should be incorporated in the National Laboratory Manual.
- EQA activities may require considerable resources; their implementation should be carried out in stepwise fashion, supported by detailed planning and training of staff at appropriate levels.
- WHO, in collaboration with other partners, should provide the necessary support for countries to introduce the new QA system as outlined in the Regional guidelines.
- WHO is requested to continue strengthening Regional laboratory services through various mechanisms, including regular laboratory meetings at Regional or other levels.

### 2.3 DOTS Implementation: Best practices in the Western Pacific Region

In some countries in the Region, innovative and useful practices in TB control are being applied. By sharing these experiences, other countries can benefit, as the lessons learned from these practices may help to improve key aspects of TB control. The DOTS installation package in Cambodia, the supervision and monitoring system applied in Viet Nam and the collaboration mechanism between the Department of Health and its partners in the Philippines, of which the National TB Programme review in 2002 was a good example, can be considered best practices in the Region.

*Recommendations:*

- WHO should analyse the package approach of DOTS installation and develop a standardized “operational package for DOTS installation” for adaptation and use in other countries.

- Relevant high TB burden countries may adopt the Department of Health-partner collaboration model in the Philippines as an effective mechanism for partner collaboration.
- Countries should give high priority to regular supervision and monitoring, focusing on poor performing areas and using standardized checklists for improving the quality of DOTS implementation.

## 2.4 Case Detection

Case detection of new smear positive TB cases in the Western Pacific Region is currently, on average, not higher than 50%. Among the seven countries with a high burden of TB, only one country, Viet Nam, has reached the case detection target of 70%. Three countries, Cambodia, Mongolia and the Philippines, provide DOTS services countrywide, but have not yet reached 70%. Three other countries, China, Lao People's Democratic Republic and Papua New Guinea, are still in the DOTS expansion phase. The situation in China was used to emphasize the need to strengthen case detection and to present some of the options for addressing key constraints in reaching the target. The following areas were highlighted: strengthening of political commitment, particularly at the provincial level; collaboration among hospitals and TB dispensary and other TB institutions; strengthening human resources for TB control, especially at the central level; and improving the quality of training and supervision.

### *Recommendations:*

- Countries should step up their efforts to increase case detection if the global target of 70% is to be achieved by 2005. In order to guide countries in their efforts, the following should be considered.
  - (1) First step: Ensure good management of patients already identified by the health system by:
    - Expanding the DOTS strategy throughout the country;
    - Improving the quality of sputum smear examination;
    - Involving hospitals (public and private) in referral or management of TB cases; and
    - Involving private practitioners in TB control through tested mechanisms.
  - (2) Second step: Increase access to free diagnosis by:
    - Involving the community in identification of TB suspects and in provision of supervision of treatment;

- Removing fees for diagnosis and treatment and providing anti-TB drugs free of charge;
- Decentralizing DOTS services to more peripheral health facilities; and
- Targeting special groups such as prisoners, populations in remote areas and migrants from rural areas.

## 2.5 Other Technical Issues

### *TB/HIV*

TB/HIV co-infection rates are increasing in several countries in the Region and with the exception of Cambodia, insufficient attention is being given to this emerging problem. In Cambodia, four pilot areas have been identified for TB/HIV interventions in line with the national and Regional frameworks. In general, most countries lack a standardized methodology for TB/HIV surveillance. Following a revision of the global guidelines for TB/HIV surveillance in early 2003, the Regional framework for TB/HIV will be finalized by mid-2003.

### *Recommendations:*

- The Regional Office should finalize the Regional framework for TB/HIV, including TB/HIV surveillance, by mid-2003.
- TB Programmes are advised to establish or strengthen collaboration with HIV/AIDS Programmes in order to implement TB/HIV surveillance.
- Cambodia should begin implementation of the four demonstration projects for TB/HIV interventions, already designed, as soon as possible. Initial outcomes should be analyzed for the purpose of future planning.

### *Public Private Mix DOTS*

The Regional Office presented an outline of the Regional framework on Public Private Mix DOTS (PPMD). The framework, which will be further developed in 2003, consists of three elements: formula, process and mechanism. The outline has been developed based on the ongoing experience with PPMD in the Philippines. It is expected that PPMD will contribute to increased case detection in Philippines. Within the next few years, the initiative will be expanded to other parts of the Philippines. Participants appreciated the proposed framework as a simple and practical tool and encouraged the Regional Office to finalize the framework. The participants also expressed their wish for the successful Philippine PPMD initiative to be considered as a demonstration site for the Region.

*Recommendations:*

- The Western Pacific Regional Office should finalize the draft PPMD framework, incorporating lessons from the Philippines pilot project and submit it to the fourth Technical Advisory Group meeting in 2003.
- The PPMD pilot project in the Philippines should be expanded in a stepwise manner in collaboration with other partners.
- The PPMD in Philippines should function as a demonstration site for the Region.

*TB and Poverty*

Participants acknowledged the strong links between TB and poverty. Putting poverty on the TB agenda is the responsibility of the TB community. The challenge for TB control lies in reaching unreached populations, which are likely to include the poor and other marginalized groups. Several strategies may help in reaching the poor. These include targeting or prioritizing efforts to regions or areas where the poor are concentrated, by level of service (primary versus tertiary), or by population groups within programmes (such as slum-dwellers or ethnic minorities). In addition, the issue of low demand and use of services among the poor needs to be addressed by focusing on non-financial barriers to access, improving quality of care, improving provider awareness, sensitivity and skills and enhancing awareness and information among the poor. In monitoring and evaluation, efforts are required to disaggregate and analyse information by income, sex, ethnicity, rural-urban residence and employment status. Where possible, TB Programmes need to analyse the incidence of benefits and determine whether or not the poor are benefiting (at least proportionately) and reasons why this may or may not be the case.

*Recommendations:*

- Countries should integrate a focus on poverty and equity issues into National TB Programmes. In particular, operational research can be undertaken to help identify groups that face barriers to access and to clarify reasons for delay in seeking care.
- WHO was requested to continue to provide technical support in this area to enable countries to better integrate a poverty focus into their TB Programmes.

## 2.6 TB Drug Management

Following a presentation on the TB drug management framework, participants discussed a range of topics related to this issue in their countries. These topics included regulation of anti-TB drugs, quantification of national TB drug needs using morbidity data and drug consumption data methods, fixed-dose combination (FDC) drugs, procurement methods and emphasising the importance of pre-qualification and quality assurance. A rapid survey was conducted during the session with the aim of assessing the existence of TB drug management issues in the countries with a high TB burden. Furthermore, participants discussed the options for securing anti-TB drugs by grants or procurement through the Global Drug Facility (GDF). Participants concluded that TB Programmes should ensure a reliable and continuous supply of quality assured anti-TB drugs at the best possible price. It was agreed that TB managers need to become more aware of TB drug management issues.

### *Recommendations:*

- NTPs should strengthen their collaboration with National Drug Regulatory Authorities.
- The Western Pacific Regional Office's Stop TB and pharmaceutical Programmes should jointly develop a strategic framework for TB drug management by the second quarter of 2003.
- The rapid survey conducted during the meeting suggests the need for a more detailed assessment of drug management issues in the countries with a high burden of TB, with a view to developing country-specific strategies, as required.

## 2.7 Country Action Plans for 2003

Following the discussions during the technical sessions, NTP and laboratory managers prepared detailed and practical country action plans for 2003. These plans respond to the major constraints that countries face in expanding DOTS and improving the quality of its implementation. The activities necessary to address these constraints are also included.

### *Recommendation:*

- Countries should obtain commitment for implementation of the action plans for 2003, with the support of WHO and other partners, in order to undertake activities outlined in the plans, in a timely and effective manner.

## 1. INTRODUCTION

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Almost 30% of the global tuberculosis (TB) burden occurs in countries in the Western Pacific Region. In September 1999, the 50<sup>th</sup> session of the Regional Committee for the Western Pacific declared a “Tuberculosis Crisis” in the Region. The WHO Western Pacific Regional Office (WPRO) established a special project called “Stop TB in the Western Pacific Region” to respond to the crisis. The short-term goal of this project is to reach 100% Region-wide DOTS coverage by the year 2005. Achieving this will enable a 50% reduction in TB morbidity and mortality by 2010.

The special project has now moved into an acceleration phase (2001-2005). Without stepping up efforts, the target of expanding DOTS coverage in the Region from the present rate of 68% to 100% by the year 2005 cannot be reached. The target of 70% case finding cannot be met without full DOTS coverage. The latest WHO TB report shows that with the exception of Viet Nam, case detection has not yet reached 70% in countries where 100% DOTS coverage has been achieved. Addressing this constraint requires further planning and action. Since the annual TB Technical Advisory Group meetings in the Region address mainly policy and planning issues, TB Programme managers in the seven countries with a high burden of TB need a forum to discuss problems and issues of a more technical nature. In order to meet this need, a four-day meeting was scheduled in Cebu, Philippines, to provide an opportunity for TB programme managers to share experiences and discuss common problems and issues. Since TB laboratory services are an integral part of TB control activities, it was decided to invite TB laboratory managers to attend a joint meeting with TB programme managers.

Laboratory diagnosis by sputum-smear microscopy is a key component of the DOTS strategy. It follows that quality assurance (QA) of microscopy services is necessary to ensure the reliability of both diagnosis of infectious cases and monitoring of response to therapy. Competent laboratories are also essential for surveillance of resistance to anti-tuberculosis drugs. Emergence of resistance to isoniazid and rifampicin (i.e. multi-drug resistance or MDR) is an important challenge for National Tuberculosis Programmes (NTPs) throughout the Region.

In April 2002, the World Health Organization (WHO) convened an Informal Consultation on TB Laboratories in the Western Pacific Region in Manila, Philippines. The meeting concluded that reviewing and strengthening existing TB laboratory services, especially QA of microscopy services and human resources development, are of great importance.

## 1.1 Objectives

The objectives of the meeting are separate for the TB managers and laboratory managers.

For TB managers:

At the end of the meeting, the participants will have:

- (1) reviewed the DOTS implementation status in the high TB burden countries with regard to progress towards achieving national and Regional targets;
- (2) determined options for dealing with emerging issues, including multi-drug resistance (MDR), public-private mix DOTS (PPMD) and TB-HIV;
- (3) discussed the specific issues related to TB drug supply management;
- (4) discussed technical issues on quality assurance of sputum-smear microscopy in a joint session with the “First Meeting on TB Laboratories in the Western Pacific Region”; and
- (5) developed a national plan of action for 2003-2004 to accelerate DOTS expansion and to sustain high quality TB services.

For laboratory managers:

At the end of the meeting, the participants will have:

- (1) reviewed the current status of TB laboratory services in the Western Pacific Region, including the relationship of these services to National Tuberculosis Programmes;
- (2) been updated on the progress of the Stop TB Special Project;
- (3) discussed technical issues on quality assurance, drug resistance surveillance and development of human resource capacity; and
- (4) prepared country plans of action to strengthen laboratory services, focusing on quality assurance of sputum smear microscopy in the context of DOTS.

## 1.2 Organization

The meeting of TB programme managers and laboratory managers in the seven countries with a high burden of TB took place from 3 to 6 December 2002 in Cebu, Philippines, and was hosted by the Department of Health of the Philippines. A total of 68 participants, experts, observers and WHO secretariat exchanged views and experiences during four days of intensive discussions.

### 1.3 Opening Ceremony

Dr Jean Marc Olivé, WHO Representative in the Philippines, presented the opening remarks from WHO on behalf of the Regional Director, Dr Shigeru Omi (see Annex 3). Dr Olivé highlighted the achievements made by the countries in order to achieve the targets. The action plans have been produced and activities for increasing case finding have been implemented. The TB Programme of the Philippines was accredited as a success story of the Region at the World Lung Health Conference held in Montreal in November 2002. The laboratories are an integral part of NTPs and quality assurance plays a key role for good TB diagnosis. In order to reach the Regional targets by the year 2005, joint sessions will be held at this meeting, between the managers of the TB Programmes and laboratories, in order to prepare a joint action plan for 2003 addressing the key constraints.

Dr Antonio Lopez, Undersecretary of Health gave the welcoming remarks from the Department of Health of the Philippines. Dr Lopez highlighted the strong political will of the Philippine Government towards the TB Programme. Dr Lopez said that there is now a focus on terrorist attacks round the world, but TB kills many more people than terrorism. Dr Lopez indicated that a strong partnership (Japan International Cooperation Agency [JICA], United States Agency for International Development [USAID], WHO, World Vision etc.) was the key to achieving the success of TB control in the country.

Dr Anden, Deputy Regional Director of the Region VII of Central Visayas, the host for the meeting in Cebu, expressed her welcoming remarks. She reported that in 1992, Cebu had started a DOTS pilot project with assistance from JICA. Cebu Province has the highest cure rates in TB in the Region. Cebu has a well-functioning reference laboratory which the participants will visit. Dr Anden said that despite these successes, TB still remains a public health problem in the Region.

After the opening ceremony, Dr Dong Il Ahn, the Regional Adviser for TB, proposed the office bearers for the meeting. The following persons were proposed as Chairpersons:

Day 1: Dr Jaime Lagahid, Philippines

Day 2: Dr James Wangi, Papua New Guinea and Dr Wang Sumin, China

Day 3: Dr Wan Liya, China, and Dr Babona, Papua New Guinea

Day 4: Dr Nora Cruz and Dr Jaime Lagahid, Philippines

Dr Nymadawa Naranbat, Mongolia and Ms Chhvivan, Lao People's Democratic Republic, were proposed as rapporteurs for the entire meeting. The proposal was unanimously accepted.





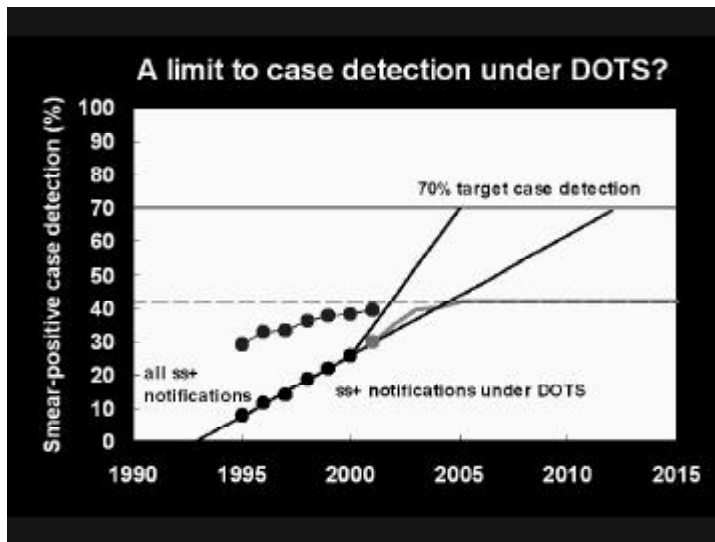
## 2. PROCEEDINGS

### 2.1 Overview of Stop TB (Agenda 2)

*Presented by Dr Leopold Blanc, Medical Officer, WHO Headquarters (HQ)*

The global targets for TB control are to achieve 70% case finding and 85% treatment success. These targets were originally set for the year 2000. Globally, the targets could not be met and therefore new targets were launched to reach 100% DOTS coverage by 2005 and to halve the prevalence of TB by 2010. Although DOTS expansion has been impressive, reaching from 73 countries by 1995 to 148 countries by 2000, the case detection rate remains low. Over the same time period, the treatment success rate has slowly ramped up from 77% to 84%, almost reaching the target of 85%.

The trend of case detection data indicates that DOTS expansion has to be accelerated. Without acceleration, it is estimated that the target of 70% case detection will only be reached by 2013. It seems that DOTS currently guarantees high cure rates and detection of more “accessible” cases. Where then are the missing cases? They may be at home, missed if DOTS programmes do not diagnose or notify in other sectors (such as the military or prisons) in non-DOTS programmes or in the private sector.

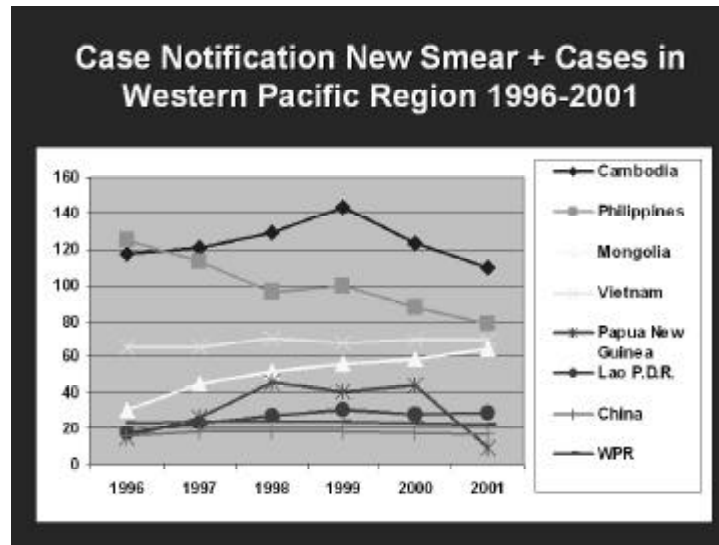


Careful analysis of the constraints in different countries will help in reaching the global targets, but additional interventions are needed. Political commitment and support for DOTS expansion in countries is required. New approaches have to be established, such as decentralizing more activities to primary services, involving hospitals, establishing community programmes, PPM DOTS projects, and involving nongovernmental organizations (NGOs). The Interagency Committees could play a key role in coordinating such activities.

## 2.2 Overview of TB Situation in the Region (Agenda 2)

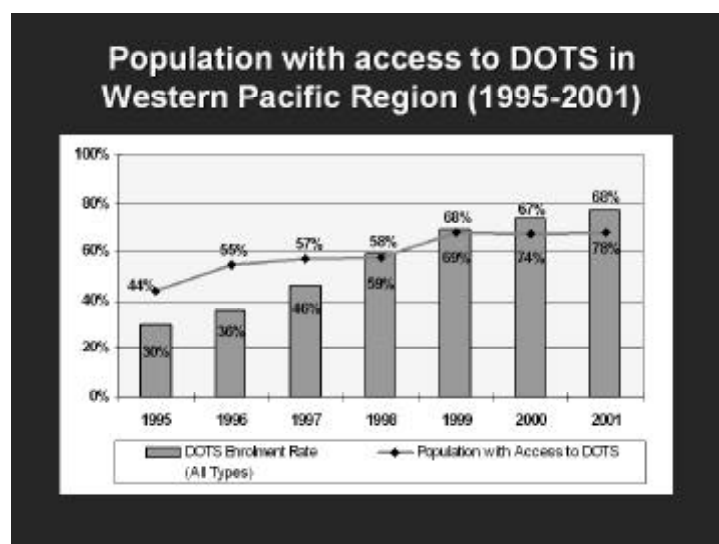
*Presented by Dr Pieter van Maaren, Medical Officer, Stop TB Unit, WHO Western Pacific Regional Office*

The focus is on the seven countries in the Region with a high burden of TB. During 2001, a total of 811 000 cases of TB (all forms) were reported to TB Programmes in countries in the Region.



Four countries account for almost 90% of the smear-positive cases in the Region, with China accounting for 61% of the total number of cases. The Regional case detection rate (all forms) was 40% in 2001. Analysing the trend of case notification over the last five years, it appears that the increase in notified TB cases has declined (both all forms and smear-positive cases).

It is clear that with a case detection rate of 40%, a significant number of patients are not notified (and possibly also not diagnosed). In most of the seven countries with a high TB burden (HBCs), the proportion of smear-



positive cases among total TB cases and among new pulmonary cases is more than 50%. The proportions are only less than 50% in Papua New Guinea and to some extent in China. DOTS coverage in the Region (population with access to DOTS), is currently at 68% and has somewhat stagnated. However, the DOTS enrolment rate (proportion of notified cases enrolled in DOTS) for smear-positive cases has continued to improve. By the end of 2001, this proportion had increased to 89%. The cure rate in most HBCs continues to be averaging above 90%. The only country with a cure rate of less than 80% is Papua New Guinea.

*Conclusion:*

An assessment of the progress made so far shows that, with respect to the cure rate, the Region is on track towards the 2005 targets. However, DOTS coverage has not progressed enough and case detection in the Region is severely lagging, especially in non-DOTS areas.

*Recommendation:*

- Countries and WHO are requested to urgently address the key constraints preventing acceleration of DOTS implementation and achieving the Regional targets by 2005.

### 2.3 Overview of TB Laboratory Issues (Agenda 3)

*Presented by Dr Marcus Hodge, Medical Officer, Stop TB Unit, WHO Western Pacific Regional Office*

The Western Pacific Regional Office of WHO organized an Informal Consultation on TB Laboratories in the Western Pacific Region in April 2002. This meeting reviewed the current status of TB laboratory services in the Region and outlined a framework for strengthening laboratory services, especially QA. The new international guidelines on the EQA of Smear Microscopy were reviewed and it was recommended that a more concise and practical Regional version be prepared. It was decided to convene a Regional Meeting on TB Laboratory Services at the end of 2002, in combination with the Regional NTP Managers' Meeting. In preparation for this meeting, it was decided to conduct country situation assessments in each of the seven HBCs. Developments in the Region for strengthening of TB laboratory services are consistent with the work and activities of the Laboratory Subgroup of the DOTS Expansion Working Group.

### 2.4 Country Presentations (Agenda 4)

All countries with a high burden of TB were requested to prepare their country presentations using the same template. The template included the following topics: Structure of TB control; Organization of laboratory services

(organigram); Staffing and budget of laboratory (lab) services; Provision of TB lab services at different levels; and TB information of the country status of DOTS implementation, including political commitment, microscopy services, DOTS and drugs and monitoring. The key events and achievements in 2002 as well as the major constraints were presented. Highlights (overall assessment) of each country are presented below.

#### 2.4.1 Cambodia

*Presented by Dr Mao Tan Eang, Director of National Centre for TB and Leprosy Control (CENAT)*

Microscopy services are implemented at central and intermediate levels. There is an adequate number of staff, but capacity is still limited. The quality assurance system is implemented with some irregularity, but 90% of diagnostic centres are estimated to have good quality.

Political commitment is good, which is manifested in a strong central level team of 20 staff members. There is a TB manual in line with the DOTS strategy and an implementation plan for 2003. Interagency Coordinating Committee (ICC) meetings are organized regularly. However, the budget gap of over 30% decreases the overall impact of the political commitment. Ninety-eight percent (98%) of new smear positive cases are under DOTS. Anti-TB drugs have no quality control in the country, however, the country does not have expired drugs in use. Monitoring of the programme works well: staff positions are filled; training plans and supervision implemented; and all units report 100% of the cases.

Major achievements in 2002 include: increased case detection; cure rate maintained at 89%; drug supply secured; and DOTS expanded to include 381 out of 945 health centres. A prevalence survey has been carried out.

Major constraints include: limited funding and personnel to expand DOTS; increasing HIV prevalence which has a negative impact on the NTP; limited community and private sector involvement; and limited Information, Education and Communication (IEC) activities. The constraints are addressed in the plan of action for 2003.

In the discussion, the system of smear preparation at peripheral level and the sending of slides to intermediate or central level were appreciated. Sixty percent (60%) of the positive smears come from the periphery. CENAT feels that this system has contributed to the increased case detection.

### 2.4.2 China

*Presented by Dr Liu Jianjun, Director of the National Centre for TB Control and Prevention (NCTB)*

China has TB laboratory services at four levels. QA is carried out at all of these levels. The constraints in the laboratories include inadequate technical assistance and insufficient senior personnel, training and funding. The QA network is not yet complete.

Political commitment is still limited, manifested by a weak central unit. There is also a gap in funding (less than 30%). However, the NTP manual is in line with DOTS strategy, ICC meetings are held regularly and the action plan for 2003 is ready.

Anti-TB drugs are of good quality and sufficient. Most new smear positive cases are put on DOTS. The monitoring of the programme is not functioning properly because not all staff positions are filled and not all units report cases.

The major achievements in 2002 include DOTS expansion to 16 provinces, covering a population of 0.65 billion. Also, TB guidelines are distributed and supervision could be carried out to 28 provinces.

Major constraints are insufficient commitment by local government, lack of trained staff and a low case detection rate.

In the following discussion, the issue of a DOTS Plus project was raised. There are documented MDR-TB cases in China. Dr Zeng responded that the clinical situation looks different to laboratory results because cure rates are high even in resistant cases.

### 2.4.3 Lao People's Democratic Republic

*Presented by Dr Phannasinh Sylavanh, Director of the National Tuberculosis Centre*

The TB laboratory services are provided at three levels. There is insufficient laboratory staff and quality control is implemented irregularly. Political commitment is rather weak and the central unit is weak. However, the NTP manual is present and the 2003 plan is written. There is still a funding gap of 30% and the ICC committees are not yet established.

DOTS is implemented in most new smear positive cases. Drugs are of good quality and there is no shortage. Monitoring of the programme is limited because of lack of personnel. Thirty to eighty percent (30%-80%) of units report TB cases.

Major constraints include a low DOTS coverage, currently at 40%, and lack of personnel, especially in the laboratories.

In the following discussion, the issue of insufficient laboratory personnel was raised. The NTP will solve the problem by training nurses in smear microscopy. The expansion of DOTS coverage from 40% to 70% in five years time was also discussed. The strategy is to expand DOTS to the community level. There must be different strategies for difficult areas.

#### 2.4.4 Mongolia

*Presented by Dr Naranbat, Deputy Director for TB Control, National Centre for Communicable Diseases*

In spite of the difficult geographical area, the NTP is well established: The laboratory network is built up with adequate staff and quality control. DOTS coverage is 100%, case detection rate is high at 69.7% and treatment success rate is high at 87%. Political commitment is high and drugs are of good quality and sufficient. Monitoring is on target. The major constraints include the lack of involvement of feldshers and family doctors, rapid turn over of staff, the high TB rate in prisons and weak TB control with low cure rate.

The issue of how to involve family doctors in the programme was discussed. Dr Naranbat explained that all family doctors have been trained, but people are reluctant to go to the family doctor.

#### 2.4.5 Papua New Guinea

*Presented by Dr James K. Wangi, Principal Technical Adviser TB/DOTS-Disease Control and DrDiro Vanere Babona, Director Central Public Health Laboratory*

The TB laboratory services are implemented at three levels. The microscopy services are inadequate and poorly staffed and quality assurance is not performed routinely. DOTS is implemented in eight out of 20 provinces and in 17 districts out of 89. Population coverage is only at 18%. Political commitment is weak, evident by the fact that there is only one full time staff member at the central level. There is also a funding gap and the ICC does not meet regularly. However, an NTP manual has recently been produced and there is a plan of action for 2003. Only 9% of

smear positive cases are under DOTS. The quality of anti-TB drugs is good but drug shortages are anticipated in 2003. Monitoring of the programme functions with one central level national staff. Training and supervision are being carried out irregularly because of the considerable shortage of health staff. However, about 80% of the cases are reported, but the number of smear positive cases was low and the defaulter rate is high. The major constraints are related to human resources and shortage of laboratory materials.

#### 2.4.6 Philippines

*Presented by Dr Rosalind Vianzon, Medical Specialist IV, Infectious Disease Office, Department of Health*

The TB laboratory service functions at five levels: national, regional, provincial, city/municipal and sputum collection centres at the village level. The microscopy centres are adequately staffed and a quality control system is in place. The political commitment is very high, expressed in a strong central unit, new NTP manual and regular ICC meetings. The funding gap is less than 30%. DOTS coverage is 97%, case detection rate 53% and cure rate 73% with 86% success rate. Anti-TB drugs are available and more than 80% of smear positive cases are under DOTS. Monitoring and supervision are not implemented regularly in all provinces, but over 80% of TB cases are reported. The major constraints include deficiencies in monitoring and supervision, delayed procurement of drugs, weak laboratory network for quality assurance and low case finding as the private sector is not involved in TB control.

In the discussion it was mentioned that Philippines carried out a prevalence survey in 1997.

#### 2.4.7 Viet Nam

*Presented by Dr Bui Duc Duong, Vice Director of the National Institute of Tuberculosis and Respiratory Diseases (NITRD)*

The TB laboratory service exists at three levels: central provincial and peripheral. There is adequate staff for the functions. An effective quality assurance system is in place, indicating that high quality diagnostic services are available. The political commitment is strong, reflected in a robust central unit, no funding gap, regular ICC meetings, and an available manual and completed action plan for 2003. DOTS coverage is 100%, the case detection rate is 82% and the cure rate is 89.9%. Over 80% of the smear positive cases are under DOTS, the drugs are of good quality and sufficient. Monitoring and supervision are well carried out with plans, guidelines, checklists and feedback. Over 80% of units report TB cases regularly. The major constraints



are the implementation of DOTS in difficult areas and special population groups. The increase of HIV infection is a great concern.

In the discussion it was highlighted that Viet Nam is the only country in the Region that has achieved 100% DOTS coverage, whose case detection rate above 70% and cure rate is over 85%. Drug susceptibility testing is carried out and a DOTS Plus project is planned in the future, possibly in 2005. The intention is to prioritize the activities of capacity-building and conducting a prevalence survey.

## 2.5 Laboratory Issues

### 2.5.1 Summary of Country Situation Assessments (Agenda 7)

- o Situation and Constraints under DOTS, Structural and Functional Profile

*Presented by Dr Ivan Bastian, Clinical Microbiology Consultant, Adelaide, Australia*

A TB Laboratory Situation Assessment Tool was developed following the Informal Consultation on TB Laboratory Issues in the Western Pacific Region, held in Manila in April 2002. TB advisers and WHO staff were asked to use this tool to: assess the level of integration of the National TB Programme and laboratory services at the national, provincial and district levels; construct an organigram summarizing these relationships; and report on the quality control and external quality assessment measures in place in the country. A review of the reports from the seven countries with a high burden of TB found that all had NTP and laboratory services that were either fully or partially integrated at all three levels.

While no real advantage can be listed for a separated system, a fully integrated system has philosophical, financial, staffing and organizational advantages. In particular, external quality assurance measures (particularly cross-checking) require very good cooperation between well-functioning NTP and laboratory services. An integrated NTP-laboratory system is therefore highly preferable.

#### *Conclusion:*

Following discussions on a wide range of key laboratory issues, participants were pleased to note the opportunity that was offered by this meeting for dialogue and exchange of ideas between TB programme and laboratory staff. This will strengthen and motivate the TB laboratory service.

*Recommendation:*

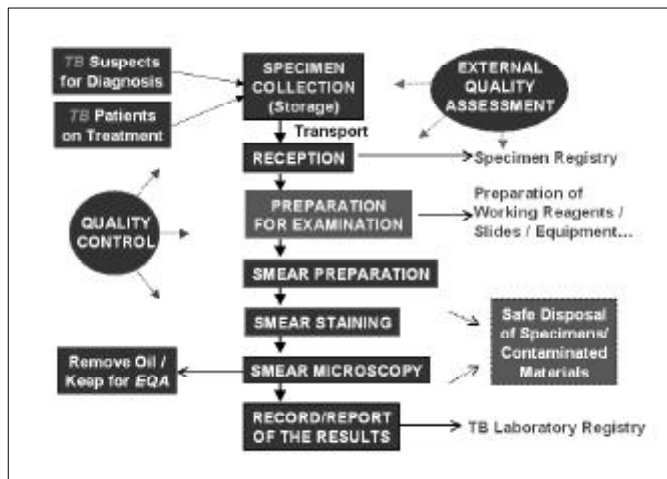
- Communication between the NTP and the laboratory network should be strengthened to facilitate implementation and ensure sustainability of QA activities.

**2.5.2 Laboratory Procedures for Developing Countries (Agenda 5)**

## o Sputum Smear Microscopy

*Presented by Dr David Dawson, WHO Consultant, Australia*

Acid-fast microscopy performed on sputum from patients who self-report with symptoms suggestive of TB is a critical element of DOTS programmes. Microscopy rapidly identifies patients with smear-positive TB.



It is these patients who are infectious to their contacts and must be enrolled in DOTS. Sputum microscopy performed during therapy confirms that patients are responding to treatment. The strengths of acid-fast microscopy come from its low cost, its robust nature, and the fact that it can be performed in laboratories with the most basic facilities. Sputum smear microscopy is not hazardous when performed by trained personnel. The most important item of equipment is the microscope. A laboratory with a defective microscope will produce unreliable results. Finally, because poor quality of the submitted specimen is an under-appreciated cause of “false” laboratory results, clinics and laboratories must make greater efforts to reduce the frequency of saliva specimens.

## o Sputum Culture

*Presented by Dr Nguyen Thi Ngoc Lan, Viet Nam*

Sputum culture is not a recommended procedure for DOTS programmes. However, in reference laboratories, it has use for drug resistance surveillance, making diagnosis in problem cases and testing non-pulmonary samples. Sample

collection must be more rigid than for microscopy. Delays in transport and storage at warm temperatures lead to high contamination rates. A transport medium such as cetyl pyridinium chloride may help reduce contamination. Preparation of samples can be carried out by a variety of means, but there must be strict control of exposure times and temperature of the digestion process. Simple culture techniques do not require neutralization if acidified Ogawa medium is used. New commercial liquid culture systems can reduce the incubation times (relative to solid media) by up to 50%. Culture techniques require skilled technicians and laboratories with good housekeeping and quality control practices.

### 2.5.3 Laboratory Quality Assurance (Agenda 8)

#### o Introduction of the New Quality Assurance Guidelines

*Presented by Dr Sang Jae Kim, Medical Officer, WHO Headquarters*

This presentation introduced the new consensus document “External Quality Assessment for Acid Fast Bacilli (AFB) Smear Microscopy” and the Regional adaptation “Quality Assurance of Sputum Microscopy in DOTS Programmes”. (QA is a system designed to continuously improve the reliability and efficiency of smear microscopy services by monitoring accuracy and reproducibility. The components of a QA programme are: quality control (i.e. systematic internal monitoring of all aspects of laboratory activity); External Quality Assessment (EQA is an external programme to assess the laboratory capability); and quality improvement (i.e. a process to find and permanently remove obstacles towards achieving high quality smear microscopy).

The international consensus document concentrates on the three components of EQA: panel testing; on-site evaluation; and blinded rechecking. Panel testing does not test routine performance. Hence, though relatively simple to perform, it has limited indications. All countries should strive for a combination of blinded crosschecking and on-site evaluation, which is the optimal EQA approach. Blinded crosschecking has been confounded over recent years by the heavy workload generated by the irrational recommendation to check all positive slides and 10% of negative slides.

This workload will be dramatically reduced by the introduction of the Lot Quality Assurance System (LQAS). This system will decide the statistically valid number of slides to be randomly selected from the peripheral laboratory’s slide collection for crosschecking. The laboratory representatives attending the meeting will consider the detailed implementation of the LQAS method for individual countries.

- o Recommended Tools for Quality Assurance in TB Laboratories

*Presented by Dr Kai Man Kam, Consultant Medical Microbiologist, Hong Kong*

Control of TB is dependent on an effective network of local laboratories that provide accurate and reliable direct (AFB microscopy for diagnosis and monitoring). Many countries do not have comprehensive laboratory EQA or they do not give it sufficient administrative support or attention. Several components of EQA are essential: on-site evaluation; panel testing; and blinded rechecking. On-site evaluation of laboratories with standard checklists is the first step towards promoting effective, consistent supervision. Panel testing, using AFB slides sent from reference laboratory to peripheral laboratory, is a mechanism that can be implemented with minimal resources, but there are severe limitations to this method. Top priority should be given to blinded rechecking of a sample of AFB slides selected in random fashion from the TB laboratory register of each local laboratory. The emphasis is on implementation and sustainability rather than rigorous analytical methods. Recommended rechecking sample sizes provide relative information on sensitivity of microscopy within the microscopy network and are based on annual workload of AFB smears as well as proportion positive smears. AFB positive slides are included primarily to achieve blinding, but the number is insufficient to determine specificity. AFB positive slides found negative on rechecking (false positives, confirmed by restaining) are usually a systematic problem that can be readily detected and corrected. Implementing EQA will require each NTP/ National Reference Laboratory (NRL) to devote time and staff to understand some complex technical and logistical issues and also to select the methods that are most appropriate and sustainable for the country.

- o Implementing Quality Assurance in TB Laboratories

*Presented by Dr David Dawson, WHO Consultant*

For successful implementation of EQA in laboratories, the following are required: an effective DOTS programme in place; an integrated NTP and reference laboratory service; and planning for the QA programme. Elements of the project planning include an analysis of the strengths, weaknesses, opportunities and threats. The discussion highlighted that panel testing was useful as a tool for training purposes, but unsuitable for assessing proficiency of technicians in microscopy. A system of regular blinded rechecking of smears from peripheral laboratories must be the goal for every country. Restaining of slides with discrepant results need only be performed when false positive smears are found. Checklists are an important component of supervisory visits. In certain situations, laboratory specialists in other disciplines may be recruited to assist with on-site visits.

- o Training and Supervision of Laboratory Technicians

*Presented by Dr Richard Lumb, Principal Medical Scientist, Adelaide, Australia*

Successful training and supervision require a combination of a readily available National Laboratory Manual (NLM) and a functional laboratory network. The training programme must be adequately resourced and be consistent with the NLM and the needs of the NTP. Training logs should be provided to all technicians to help create a national level of training consistency. Training logs define the various elements of laboratory performance that a technician is required to understand and the training requirements to achieve competence. Supervision requires an ongoing Quality Assurance Programme incorporating the use of an EQA assessment tool to monitor that laboratory practice and protocols are consistent with the NLM. Among the seven countries with a high burden of TB, there appears to be wide variation in training programmes. An opportunity exists for WHO to provide leadership in establishing minimum essential requirements for training technicians in sputum microscopy.

- o Summary of Laboratory Quality Assurance Session (Agenda 12)

*Presented by Dr Ivan Bastian, Clinical Microbiology Consultant, Adelaide, Australia*

The international consensus document “External Quality Assessment for AFB Smear Microscopy” focuses on panel testing, on-site laboratory visits and slide crosschecking. Panel testing should only be used in certain circumstances (e.g. training, checking controllers and to get a rapid assessment when no other EQA measure has been in place). Producing consistent panels is a difficult task for central laboratories. The failure of peripheral laboratories to return results also confounds panel testing. If an NTP chooses to use panel testing, then they must decide on the number and difficulty of the slides to be included in their panels.

On-site evaluation is the only method of determining the cause of laboratory errors (e.g. a faulty microscope). However, this EQA method is expensive and labour-intensive. The use of checklists is supported; these lists should be adapted for each country and the checklist published so that motivated staff can perform “self assessments” between formal laboratory visits. Each country must decide the tasks that non-laboratory inspectors can perform during quarterly laboratory visits, (e.g. simple microscope maintenance, rudimentary assessment of smear microscopy).

Slide crosschecking measures routine laboratory performance. When combined with laboratory visits, this should be the target EQA method for all countries. The LQAS will enable a statistically valid number of slides to be randomly selected from the peripheral laboratory’s slide collection for crosschecking. For laboratories with large diagnostic workloads (e.g. thousands of slides per year), the number of slides required for cross-checking will be reduced by

80% or more compared with the number collected using the old 100% / 10% rule. However, more slides (and a higher proportion of negative slides) will be crosschecked from microscopy laboratories testing only hundreds of specimens per year. Nonetheless, the overall crosschecking workload should be reduced and the crosschecking performed will be better targeted using the LQAS system. Countries must decide on how to introduce this new system, the parameters (e.g. smear positivity rate, d value, sensitivity) most applicable for their national or provincial settings and the actions to be taken when major or minor errors are detected.

When deciding on the appropriate EQA methods for their situation, country representatives must consider: the current status of their NTP and laboratory network, the laboratory workloads, any existing EQA methods, the availability of new resources and funding and the time span for introduction and scope of any new EQA measures.

Staff training is an important element of quality control. Countries with a high burden of TB, should develop training curricula and Training Logs based on their NTP guidelines and National Laboratory Manuals. Effective training, recognition and equitable promotion systems are all effective means of motivating laboratory staff, even when better salaries may not be available.

*Recommendations on Laboratory Quality Assurance:*

- Finalization of Regional guidelines on QA, incorporating both quality control and external quality assessment (EQA), should be a priority of the Western Pacific Regional Office.
- Blinded slide re-checking supported by supervisory visits to peripheral laboratories are the preferred EQA activities in countries with a high burden of TB.
- National laboratory staff are advised to review the QA situation in their own countries and adapt the regional QA guidelines as necessary to strengthen their national QA systems. QA protocols should be incorporated into the National Laboratory Manual.
- EQA activities may require considerable resources; their implementation should be carried out in stepwise fashion, supported by detailed planning and training of staff at appropriate levels.
- WHO, in collaboration with other partners, should provide the necessary support for countries to introduce the new QA system as outlined in the Regional guidelines.
- WHO is requested to continue to strengthen regional laboratory services through various mechanisms, including regular laboratory meetings at regional or other levels.

### 2.5.4 Drug Resistance Surveillance (Agenda 14)

#### o Overview

*Presented by Dr Marcus Hodge, Medical Officer, Stop TB Unit, WHO Western Pacific Regional Office*

The Global Drug Resistance Project is implemented through the three supranational reference laboratories in the Western Pacific Region. Twelve out of 37 Member States and areas in the Region have joined the Global Project and the Philippines is currently undergoing preparations for a national drug resistance surveillance survey. Several areas with high levels of multi-drug resistant tuberculosis have been identified. It is a Regional priority to expand drug resistance surveillance, especially in countries with a high burden of TB.

#### o Drug Sensitivity Testing

*Presented by Dr David Dawson, WHO Consultant, Queensland, Australia*

Understanding of the genetic basis for resistance to the major anti-TB drugs has made significant progress in recent years. There is now a universal acceptance that resistant strains carry demonstrable alterations in certain genes, such as *rpoB* for rifampicin. The purpose of *in vitro* Drug Sensitivity Testing (DST) is to make an objective measurement of the likely *in vivo* response of the infecting strain to individual drugs in the treatment regimen. Tests can be performed directly from smear-positive clinical samples, although due to technical difficulties, indirect testing following isolation on culture is a more reliable option. Numerous molecular-based assays have been developed, although almost all routine laboratories use phenotypic methods based on conventional culture systems (solid or liquid media). Commercial culture systems are the most reliable but are generally too expensive for resource-limited situations. Regardless of the method used, DST is technically demanding, labour-intensive and potentially hazardous.

#### **PRINCIPLES TO WHICH *DRS* MUST BE STRICTLY ADHERED**

- **The representative sample: sample size / sampling strategy must be determined / made to permit standard epidemiological analyses**
- **Accurate patient's history of past anti-TB therapy: to distinguish between *PDR* and *ADR***
- **Use of internationally recommended DST methods with an acceptable level of proficiency**

### o Issues on Drug Resistance Surveillance and Relationship with Treatment

*Presented by Dr Sang Jae Kim, Medical Officer, WHO Headquarters*

The two major applications of DST in resource-limited nations are for drug resistance surveillance (DRS) and management of individual patients. Sampling in DRS must ensure representative testing and requires accurate patient history to make accurate categorization on treatment history. Isolates from patients enrolled in DRS will typically be performed at the NRL with support from supranational reference laboratories. Testing methods must be well validated (e.g. proportion method on solid medium). Data from supranational laboratories show that highest predictive values can be expected for isoniazid and rifampicin. DST for individual patients has limited value, even in regions where MDR-TB is known to occur. Some medical practitioners will request tests on treatment failures for re-treatment after interruption and for relapse cases.

*Recommendation:*

- Expansion of drug resistance surveillance in the Region to monitor the situation of MDR-TB should be sustained as a surveillance priority for the Western Pacific Region.

#### 2.5.5 Field visit: Cebu Regional TB Reference Laboratory

*Dr Cristina Giango, Chief of Technical Division, Cebu Provincial Health Office made a brief introduction to the TB Reference Laboratory*

Cebu Province is located in Region VII and has a population of 2.2 million. There are 59 Rural Health Units and 490 Barangay Health Stations. JICA financed a TB project in Cebu from 1992 to 1997, establishing the Regional TB Reference Laboratory. The Reference Laboratory provides the quality control services to the Region.

The primary function of the Reference Laboratory is to train microscopists for DOTS diagnosis (eight days), to train validators/assessors for quality assurance (five days) and to conduct information sessions on direct microscopy and quality assurance for non-laboratory personnel. The laboratory has responsibilities on a national and regional basis. In the period February 1999 to March 2002, a total of 571 staff received training. The facility was established with technical and financial support from the Department of Health-JICA TB Control Project. Data analysis over five years has shown gradual improvement in all aspects of sputum smear microscopy across the region. The laboratory is equipped with Nikon microscopes, which are maintained in perfect operational condition. Microscopists received intensive training in preparing high quality smears of uniform size and thickness. Staining reagents



are prepared for distribution to local diagnostic centres. Containers were appropriately labelled with expiry date. Demonstration of positive slides showed that the stains were working to optimal performance.

## 2.6 Best Practices in Countries in the Region (Agenda 9)

*Dr Takeshi Kasai, Medical Officer, Stop TB Unit, WHO Western Pacific Regional Office, introduced the Best Practices session*

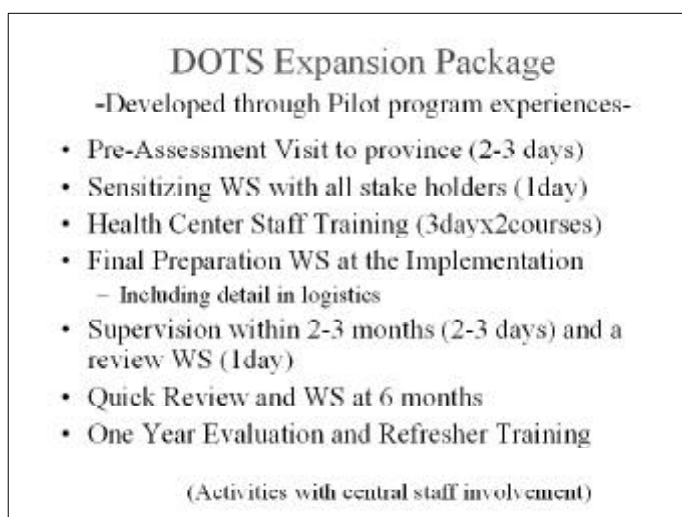
The aim of this session was to highlight useful and innovative practices in TB control. Sharing these experiences and information may help other countries improve some aspects of TB control. The DOTS package from Cambodia, supervision and monitoring from Viet Nam and ICC implementation from the Philippines could be applied in other countries in the Region.

Low case finding is a common problem in most countries, therefore the session included a presentation of case finding in China and how the issue will be addressed in the country.

### 2.6.1 DOTS Package, Cambodia

*Presented by Dr Mao Tan Eang, Director, National Center for Tuberculosis and Leprosy Control (CENAT), Ministry of Health, Cambodia*

To install DOTS in the health centre network, in primary care facilities without physician and in the operational health district, NTP Cambodia has developed the “DOTS Expansion Package.” The package was successfully applied at district level and subsequently case detection has significantly increased. The package contains several steps, from pre-assessment visit and sensitizing workshop, to a series of monitoring and evaluation activities up to one year



after the implementation to cover all five DOTS components. The package was developed based on real experiences of a pilot project with various operational researches and it is also sufficiently simple to implement. Therefore, it was well accepted by provinces and districts. It also helps the NTP to raise funds from donor agencies for DOTS expansion. Frequent feedback of pilot project results to stakeholders and observation visits to model areas are other keys to successful implementation.

*Conclusion:*

The “DOTS installation package” has been the key to successful DOTS expansion in Cambodia.

*Recommendation:*

- WHO should analyse the package approach of DOTS installation and develop a standardized “operational package for DOTS installation” for adaptation and use in other countries.

### 2.6.2 Interagency Coordinating Committee (ICC) and Programme Review, Philippines

*Presented by Dr Jaime Lagahid, Medical Officer, National Centre for Disease Prevention and Control, Department of Health, Philippines*

The ICC is a partnership built under the leadership of Department of Health with clear terms of reference (TOR) and it is called Project Assistance to Control TB (PACT). The PACT has regular informal meetings to discuss issues, share information, coordinate activities and advocate. Joint monitoring missions occur with partners, for example, in the recent national TB review and the mid term review of a World Vision TB project. The results of joint missions are useful and help with advocacy. In the future, the Philippines intends to include private providers in the ICC.

*Conclusion:*

The ICC mechanism of the Philippines (PACT) has been successful in coordinating the activities of partners to discuss common issues and exchange views. The joint programme review, with participation from all PACT members, was successfully conducted to provide future direction to improve the quality of DOTS implementation.

*Recommendation:*

- Other countries with a high burden of TB should adopt the PACT model as an effective mechanism for partner collaboration.

**2.6.3 Supervision and Monitoring of TB Control Activities, Viet Nam**

*Presented by Dr Bui Duc Duong, Vice Director, National Institute of Tuberculosis and Respiratory Diseases, Ministry of Health, Viet Nam*

In the best practices session, the presentation from Viet Nam, titled “Watering the DOTS Flower”, provided the Viet Nam experience of supervising the implementation of DOTS from national to grassroots levels.

Since the DOTS programme began in 1986, supervision has been recognized as the most important tool for DOTS expansion and ensuring the quality of DOTS. Therefore, supervision is an integral part of the NTP multi-year development plans.

The purpose of supervision in Viet Nam is to ascertain the quality of core elements of DOTS, the essential requirements for DOTS and the implementation of the DOTS strategy. On a quarterly basis, the national team of 50 staff visit the 61 provinces and provincial level teams of five staff visit the 623 districts and district TB coordinators visit the communes. Each commune has a commune health worker responsible for visiting the villages and patients.

Lesson learned provided the following recommendations for adequate supervision.

- Supervisory visits should be planned well in advance and carried out regularly at defined intervals.
- The visits should have agreed upon, well defined TOR and be comprehensive, covering all aspects of TB control.
- The NTP considers supervision a joint undertaking of staff of the different levels, based on trust.
- Each visit should start with a proper briefing and end with a debriefing to discuss findings and recommendations. It is essential to provide feedback after the visit by compiling a report of the visit.
- The NTP plans supervision according to need. Poor performing provinces and districts are visited more often than well performing ones.
- Supervision should include on-the-spot training of new supervisory and local staff following the principle of learning by doing.
- It is essential to use well-designed checklists for different programme levels, including qualitative and quantitative indicators to measure performance.

Based on the findings, where required, a repeat supervision visit should be carried out, training courses held or operational research done in order to study particular problems.

*Conclusion:*

Supervision and monitoring are given high priority and are well planned, using standardized checklists. This has been key to successful DOTS expansion and its sustained high quality in Viet Nam.

*Recommendation:*

- Countries should give high priority to regular supervision and monitoring, focusing on poor performing areas and using standardized checklists for improving the quality of DOTS implementation.

#### 2.6.4 Case Detection, China

*Presented by Dr Zhao Fengzeng, Senior Adviser, National Centre for TB Control and Prevention, Ministry of Health, China*

The case detection rate in China averages 31%, ranging from 18% in provinces that did not implement the World Bank-supported TB project to 48%, in provinces where it was implemented. China thus faces the task of rapidly increasing case detection in order to reach the 2005 target of 70%. How can the key constraints be solved in order to improve case detection?

Analysis of the reasons for low case detection shows the need to address two main issues. political commitment needs enforcing and collaboration between the hospital-dispensary and other TB institutions needs to improve. Human



resources for TB control, especially at central level, need strengthening. For improving the quality of DOTS, training and supervision have to be strengthened.

*Conclusion:*

Case detection of new smear positive cases in the Western Pacific Region is currently, on average, not higher than 50%. Only one country, Viet Nam, has reached the target of 70%. Three other countries, Cambodia, Mongolia and the Philippines, provide DOTS services countrywide. Three other countries, China, Lao People's Democratic Republic and Papua New Guinea, are still in the DOTS expansion phase.

*Recommendation:*

- Particular efforts should be made to increase case detection if the global target of 70% is to be achieved by 2005. In order to guide countries in their effort, the following should be considered:

First step: Ensure good management of patients already identified by the health system by:

- o expanding the DOTS strategy throughout the country;
- o improving the quality of sputum smear examination;
- o involving hospitals (public and private) in referral or management of TB cases; and
- o involving private practitioners in TB control through tested mechanisms.

Second step: Increase access to free diagnosis by:

- o involving the community in identification of TB suspects and in provision of supervision of treatment.
- o removing fees for diagnosis and treatment and providing anti-TB drugs free of charge.
- o decentralizing DOTS services to more peripheral health facilities; and
- o targeting special groups such as prisoners, populations in remote areas, migrants from rural areas etc.

## 2.7 Field Visit: Rural Health Unit

Country participants from Cambodia, China, Mongolia and Papua New Guinea, accompanied by WHO representatives, visited three rural health units in Cebu City. The visit was led by Dr Cristina Giango (Provincial TB Coordinator) and Ms Irina K. Lopez (Regional NTP Nurse Coordinator) and was comprised of a tour around Cebu City Health Department and two Barangays, Mabalo Health Centre and Barrio Suz Health Centre (HC).

The three main functions of the HC are to diagnose, treat and follow-up treatment of the TB patient. Diagnosis of the TB patient is free of charge, except if a patient needs an X-Ray. If the patient is poor, then the X-Ray is paid for by the hospital or private clinic. Anti-TB drugs are also free of charge and supplied by the Department of Health. DOTS practice is observed and interviews with patients confirmed that drugs are taken directly in front of the nurse on a daily basis. The health workers themselves, acting as treatment partners, ensure follow-up of treatment. In the case of defaulters, these health workers might even visit the patient's residence in order to ensure that DOTS drugs are administered directly to the patient.

The visit was both informative and interesting and confirmed that a motivated health care workforce has contributed significantly to the Philippines' progress towards the global targets.

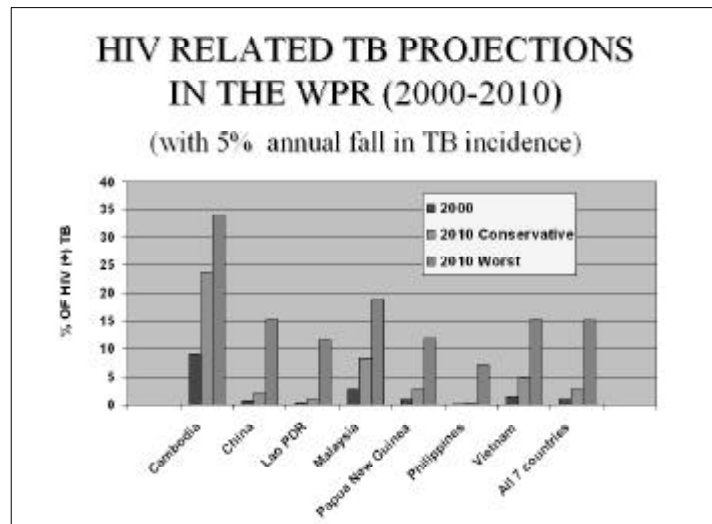
## 2.8 Update on Technical and other TB-related Issues (Agenda 11)

### 2.8.1 TB/HIV

*Presented by Dr Pieter van Maaren, Medical Officer, Stop TB Unit, WHO Western Pacific Regional Office*

The presentation on the current situation of TB/HIV in the Region focused on the most affected countries with a high burden of TB. Based on findings in Sub-Saharan Africa, a clear link was shown between the increase in HIV prevalence and increase of TB incidence. Recent evidence from Cambodia suggests that the TB incidence in Pnomh Penh is rising rapidly as a result of the HIV epidemic. There should be clear concern in the Region as HIV infections are on the increase. Estimates from the China suggest that more than one million people are infected with HIV. A worst-case scenario shows TB/HIV co-infection figures reaching up to 35% in Cambodia and 15% in China by 2010. These rates will lead to a sharp increase in the TB incidence in these countries. At the Regional level, a number of activities and interventions have been introduced. Based on the global TB/HIV framework, the Region has developed a strategic framework to address surveillance, prevention and care of TB/HIV. The framework takes note of the different situation in Sub-Saharan Africa as compared to the Regional one of a low- or mid-level HIV prevalence amidst a high TB incidence. The framework emphasizes the individual roles of both TB and HIV/AIDS Programmes in developing and implementing TB/HIV activities. In Cambodia, the National TB and HIV/AIDS Programmes have jointly developed their TB/HIV strategy based on the Regional framework. The Regional Office has successfully lobbied at the global level for an increase in the attention to TB/HIV in low- and mid-level HIV prevalence and high TB incidence settings. A revision of the global guidelines for surveillance of TB/HIV is in progress and the next meeting of

the global TB/HIV Working Group will address the specific situation in the Western Pacific Region.



In the meantime, progress is being made in the Region, with countries increasingly aware of the need to address TB/HIV. Joint meetings of HIV/AIDS and TB Programmes have taken place in China and Viet Nam. Cambodia has started the implementation of specific TB/HIV activities, supported by Centers for Disease Control and Prevention, United States of America and the Western Pacific Regional Office.

*Conclusion:*

The TB/HIV co infection rates are increasing in several countries in the Region and, with the exception of Cambodia, insufficient attention is being given to this emerging problem. In Cambodia, four pilot areas have been identified for TB/HIV interventions in line with the national and Regional frameworks. In general, most countries lack a standardized methodology for TB/HIV surveillance. Following a revision of the global guidelines for TB/HIV surveillance in early 2003, the Regional framework for TB/HIV will be finalized by mid-2003.

*Recommendations:*

- The Regional Office should finalize the Regional framework for TB/HIV, including TB/HIV surveillance, by mid-2003.
- TB Programmes are advised to establish or strengthen collaboration with HIV/AIDS Programmes in order to implement TB/HIV surveillance.
- Cambodia should begin implementation of the four demonstration projects for TB/HIV interventions, already designed, as soon as possible. Initial outcomes should be analyzed for the purpose of future planning.

### 2.8.2 Public-Private Mix DOTS (PPMD)

*Presented by Dr Takeshi Kasai, Medical Officer, Stop TB Unit, WHO Western Pacific Regional Office*

The Regional Office presented an outline of the Regional framework on PPMD. The framework, which will be further developed in 2003, consists of three elements: formula, process and mechanism. The outline has been developed based on the ongoing experience with PPMD in the Philippines. It is expected that the PPMD will contribute to increased case detection in the Philippines. Within the next few years, the initiative will be expanded to other parts of the country. Participants appreciated the proposed framework as a simple and practical tool and encouraged the Regional Office to finalize the framework. The participants also expressed their wish for the successful Philippine PPMD initiative to be considered as a demonstration site for the Region.

Conclusion:

Involvement of the private sector in TB control becomes increasingly more important. In response, a Regional framework for PPMD is being developed. Several initiatives have been taken in different countries to establish public-private partnerships. The most advanced initiatives can be found in the Philippines. The PPMD pilot in the Philippines is expected to contribute to increasing case detection and is to be further expanded in the country.

*Recommendations:*

- The Western Pacific Regional Office should finalize the draft PPMD framework, incorporating lessons from the Philippines' pilot project and submit it to the fourth Technical Advisory Group meeting in 2003.
- The PPMD pilot project in the Philippines should be expanded in a stepwise manner in collaboration with other partners.
- The PPMD in Philippines should function as a demonstration site for the Region.

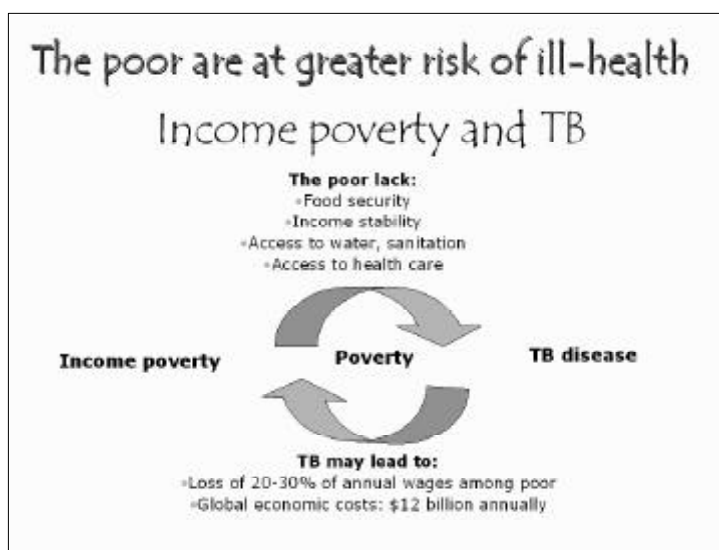
### 2.8.3 TB and Poverty

*Presented by Ms Anjana Bhushan, Technical Officer, Health System Development, WHO Western Pacific Regional Office*

Poverty is a multidimensional concept, encompassing: low income, poor access to skills and resources, vulnerability, insecurity, voicelessness and disempowerment and overlapping with other causes of social exclusion, such as gender and ethnicity.



Poverty and health are linked in many ways. Ill health leads to poverty and poverty leads to ill health (the vicious circle); good health is linked to higher income and welfare and higher income is linked to good health (the virtuous circle). While the poor are at greater risk of ill-health (including TB) and their health care needs are greater, their use of services is lower (the inverse care law). Health care costs can impoverish. The poor face both supply- and demand-side barriers in access to care. The former includes physical access, while the latter includes financial barriers, stigma and perceived or actual quality of care.



There are at least three broad rationales to proactively address poverty issues in health in general and in TB control and prevention specifically: efficiency; equity; and human rights.

Strategies for action can be summarized under two broad categories: actions to put TB on the poverty (and development) agenda and actions to put poverty on the TB agenda. The former includes strategies such as: increasing resources for TB control and improving their allocation; advocacy to promote understanding of health as central to development and poverty reduction; and cross-sectoral work on the non-health sector determinants of ill health.

Putting poverty on the TB agenda is squarely the responsibility of the TB community. The challenge for TB control today lies in improving case detection. This implies reaching unreached populations, which are likely to include the poor and other marginalized groups. There are two broad views about how to do this: expand DOTS and improve its implementation and complement standard DOTS with other strategies. Evidence suggests that the latter view is likely to be more accurate.

Several strategies may help in reaching the unreached. These include: targeting or prioritizing efforts to regions or areas where the poor are concentrated; by

level of service (primary versus tertiary); and by population groups within programmes (such as slum-dwellers, ethnic minorities, etc.). In addition, the issue of low demand and use of services among the poor needs to be addressed by focusing on non-financial barriers to access, such as improving quality of care, improving provider awareness, sensitivity and skills and enhancing awareness and information among the poor. In monitoring and evaluation, efforts are required to disaggregate and analyse information by income, sex, ethnicity, rural-urban residence and employment status. Where possible, TB programmes need to analyse the incidence of benefits and determine whether the poor are benefiting (at least proportionately) and reasons why this may or may not be the case.

*Conclusion:*

Participants acknowledged the strong links between TB and poverty and noted that TB programmes have strong potential for integration of a poverty focus.

*Recommendations:*

- Countries should integrate a focus on poverty and equity issues into their National TB Programmes. In particular, operational research can be undertaken to help identify groups that face barriers to access and to clarify reasons for delay in seeking care.
- WHO was requested to continue providing technical support in this area to enable countries to better integrate a poverty focus into their TB programmes.

## 2.9 Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM)

*Presented by Dr Takeshi Kasai, Medical Officer, Stop TB Unit, WHO Western Pacific Regional Office*

The Regional Office provided an update on the GFATM. In 2002, the Western Pacific Region had the highest success rate in the first round of proposals as compared to other Regions. Successful countries are currently making arrangements to receive the funds from GFATM. This includes identifying a Local Fiduciary Agent, followed by the preparation of the implementation of the proposal in accordance with the GFATM proposed “two step approach”. Countries are requested to develop their work plan with milestones, initially for six months, but eventually for the entire two-year duration.

The second round proposals, which were submitted to the GFATM in September 2002, were screened by the GFATM secretariat and reviewed by the Technical Review Panel. The final decision to approve proposals will be

made in the next Board meeting in January 2003. Following the second round, an additional two rounds have been scheduled for 2003.

Currently, only the first of four phases, preparation of the proposal, has been completed. The additional three phases (preparations of receiving funds, implementation of the proposal and monitoring and evaluation of the implementation) are yet to begin. There are still areas that require further clarification by the GFATM secretariat, such as the issue of reporting needs. Nevertheless, it is already clear that implementation of the GFATM proposals will result in a considerable additional burden for countries in the Region.

### 2.10 TB Drug Management (Agenda 15)

*Presented by Dr Richard Laing, School of Public Health, Boston University and Dr Budiono Santoso, Regional Adviser, Pharmaceuticals, WHO Western Pacific Regional Office*

The presenters discussed the framework for the management of anti-TB drugs. During the session, participants discussed current problems related to drug management in their various countries and made recommendations for addressing these issues.

Regulation of anti-TB drugs to ensure quality safety and efficacy was viewed as the responsibility of the National Drug Regulatory Authorities (DRAs). The Philippines' NTP team reported the value of meeting with their Bureau of Food And Drugs Administration (BFAD) to facilitate the registration of Global Drug Facility (GDF) products. DRAs were encouraged to either remove anti-TB drugs from private sector drug sellers, or to limit the drugs sold in the private sector to only fixed dose combination (FDC) products.

For quantification of national needs for TB Programmes, the use of both morbidity and consumption quantification methods were advised.

NTP staff generally made the selection of NTP drugs in accordance with drugs listed on the National Essential Drugs List (EDL). The many advantages of selecting and using FDC drugs were reviewed. The need to have single formulations available for specialist use for patients with side effects was reported. NTPs were encouraged to change regimens to be based on FDCs. Single dose products should be made available to TB specialists working within the NTP.

Different procurement methods for anti-TB drugs were discussed. The difficulties associated with using Open Tender, especially when part of a World Bank project, were reported. The benefits of using Restricted Tenders with prequalification were identified. A recent national experience of using the

Direct Procurement method from GDF was reported. Participants welcomed the fact that the cost of anti-TB drugs for a full course of treatment was between US\$9-\$10. The GDF was discussed as a resource for NTPs. The use of the GDF as an emergency source, a regular supplier for DOTS expansion, or as a procurement agent, was reviewed. Whenever possible, restricted tender with prequalification, or direct procurement from GDF or non-profit suppliers, was recommended as the procurement method of choice.

Anti-TB drug quality was discussed. The point was strongly made that the quality of anti-TB drugs depended on the procurement practices used, rather than testing products. Results of rapid testing from African countries were reported. In these studies, all tested drugs had the correct drug content, though in some cases dissolution testing failed.

A rapid survey of country drug management experiences was circulated and completed (See Annex 4).

*Conclusion:*

Ensuring a reliable supply of quality-assured anti-TB drugs at the best possible price is the aim of any TB Programme. TB managers need to become more aware of TB drug management issues.

*Recommendations:*

- NTPs should strengthen their collaboration with National Drug Regulatory Authorities.
- WHO Stop-TB and pharmaceutical programmes should jointly develop a strategic framework for TB drug management by the second quarter of 2003.
- The rapid survey conducted during the meeting suggests the need for a more detailed assessment of drug management issues in the countries with a high burden of TB with a view to developing country-specific strategies as required.

### 2.11 Preparation of Action Plan 2003 (Agenda 16)

A presentation was made on the preparation of plan of action for 2003 to strengthen the implementation process of DOTS. This includes laboratory activities, particularly the stepwise introduction of EQA for sputum examination. During this presentation, the participants, the NTP managers, as well as the laboratory managers, were guided to prepare a plan of action for 2003 for their respective country TB Programme (see Annex 5), identifying three to four major constraints, which they considered to be TOP priority.

*Conclusion:*

Countries prepared detailed and practical action plans for 2003 for the NTP and laboratory services. These outlined major constraints to expanding DOTS and improving the quality of DOTS and the activities necessary to address these constraints.

*Recommendation:*

- Countries should obtain commitment for implementation of the action plans for 2003, with the support of WHO and other partners, in order to undertake the activities outlined in the plans, in a timely and effective manner.

## 2.12 Events of TB Control at Global and Regional Level in 2003

*Presented by Dr Leopold Blanc, Medical Officer, WHO Headquarters and Dr Dong Il Ahn, Regional Adviser Stop TB, WHO Western Pacific Regional Office*

The presenters provided an overview of the major events and activities at global level and in the Western Pacific Region in 2003. The main activities in the Regional Action Plan for 2003 include: the fourth Technical Advisory Meeting (TAG) and fourth Interagency Coordinating Committee (ICC) to be held in June; training courses and conferences organized in conjunction with the International Union Against Tuberculosis and Lung Disease (IUATLD) for human capacity building; regular monitoring visits and missions to provide technical support; and finalization of the Regional HIV/TB and PPM DOTS frameworks by the end of the second quarter of 2003 (see Annex 6).

### 3. ANNEXES

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Annex 1	Timetable of the Meeting
Annex 2	List of Participants
Annex 3	Opening Remarks (Regional Director)
Annex 4	Drug Management Survey
Annex 5	Country Action Plans
Annex 6	Regional Action Plan



**MEETING FOR TB PROGRAMME AND LABORATORY MANAGERS IN THE WESTERN PACIFIC REGION  
PROVISIONAL TIMETABLE**

Time	Monday, 02 Dec	Time	Tuesday, 03 Dec	Time	Wednesday, 04 Dec	Time	Thursday, 05 Dec	Time	Friday, 06 Dec
0900-1000	Secretariat Meeting	0800-0930	Registration Plenary Opening ceremony Welcome remarks: - WHO - DOH, Philippines - RHO, Region VII, Philippines	0800-0900	Plenary (7) Laboratory quality assurance: Country assessment + introduction EQA guidelines Laboratory (8) Quality assurance	0800-0830 0830-0900	Plenary (12) Summary Quality Assurance (13) Global Fund to fight AIDS, TB and Malaria (GFATM) Laboratory (14) Technical issues	0800-1000	Plenary (18) - Summary session on Best Practice (9) - Summary session on drug management (15) - Presentation country action plans for Laboratory and NTP
1030-1200	COFFEE	1000-1200	PHOTO SESSION / COFFEE	1030-1200	COFFEE BREAK	1030-1200	COFFEE BREAK	1030-1130	COFFEE
1030-1200	Secretariat Meeting (continued)	1000-1200	Plenary (1) Aims and objectives (2) Overview DOTS Global and WPRO (3) Overview Lab - WPRO (4) Country presentations	1030-1200	Laboratory (continued) Quality assurance	1030-1200	Laboratory (continued) Drug resistance surveillance - Overview - DST - Issues on DRS	1030-1130	Plenary (19) Recommendations (20) Closing
1400-1500	LUNCH	1330-1500	LUNCH BREAK	1330-1500	LUNCH BREAK	1330-1415 1415-1500	LUNCH BREAK	1330-1415 1415-1500	
1600-1700	Secretariat Meeting (Laboratory)	1330-1500	Country presentations (continued)	1330-1500	Laboratory (continued) Quality assurance	1330-1415 1415-1500	Plenary (16) - NTP - Laboratory Plan 2003: Stepwise introduction EQA - WHO/WPRO activities in 2003 Laboratory (16 continued) Development Action Plan 2003	1330-1415 1415-1500	Plenary (16) - NTP - Laboratory Plan 2003: Stepwise introduction EQA - WHO/WPRO activities in 2003 Laboratory (16 continued) Development Action Plan 2003
1600-1700	COFFEE	1530-1700	COFFEE BREAK	1530-1700	COFFEE BREAK	1530-1700	COFFEE BREAK	1530-1700	COFFEE BREAK
1600-1700	Briefing meeting for NTP and Laboratory managers	1530-1540 1540-1700	(6a) Plenary: Introduction Cebu Reference Lab Laboratory (5) Procedures for HBCs - sputum smear - culture NTP (6b) Visit Regional Lab Cebu or RHU	1530-1700	Laboratory (10) Field visit Cebu Regional reference laboratory	1530-1700	Laboratory (continued) Development Action Plan 2003	1530-1700	Laboratory (continued) Development Action Plan 2003
1830		1830	Banquet	1830		1830		1830	





MEETING OF TB MANAGERS  
IN COUNTRIES OF THE WESTERN PACIFIC  
REGION WITH A HIGH BURDEN OF TB

Cebu City, Philippines  
3-6 December 2002

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MEETING ON LABORATORY SERVICES  
IN COUNTRIES OF THE WESTERN PACIFIC  
REGION WITH A HIGH BURDEN OF TB

Cebu City, Philippines  
3-6 December 2002

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**Please refer to the List of Participants of the TB Managers Meeting.**



OPENING REMARKS OF THE REGIONAL DIRECTOR AT THE  
MEETING FOR MANAGERS OF NATIONAL TB PROGRAMMES AND  
LABORATORIES IN COUNTRIES WITH A HIGH BURDEN OF TB

3-6 December 2002,  
CEBU CITY, PHILIPPINES  
(delivered by WR/PHL)

DISTINGUISHED PARTICIPANTS,  
LADIES AND GENTLEMEN:

It is my pleasure to welcome you today, on behalf of the Regional Director, Dr Shigeru Omi, to this important meeting. It is important, because one third of the global TB burden is born by the Western Pacific Region, and, as I speak, hundreds of people are dying of TB in our Region.

Many of you are aware of the declaration of a TB crisis in 1999 by the Regional Committee for the Western Pacific, and the subsequent establishment of the Stop TB special project and the Technical Advisory Group. During the past three years a strong foundation has been laid for acceleration towards the Regional target of 100% DOTS coverage by 2005, and 50% reduction of the TB burden in the Region by 2010.

The political commitment to fight TB in our Region is now very strong. All seven countries with a high burden of TB have budgeted five-year plans for TB control, and international support for these plans has increased manifold. However, having noted the current DOTS coverage in the Region of 65%, it is clear that in the next three years strong efforts need to be made by countries to reach Region-wide DOTS coverage by 2005.

Strong political commitment is only one of the components of the DOTS strategy. Effective TB control also requires high quality implementation of the technical parts of the TB work. This meeting aims to discuss key implementation issues, mostly of a technical nature. You will share experiences and identifying viable options to accelerate the expansion of DOTS and increase the quality of TB control services in your country.

One of the keys to sound TB control is the ability of health services to identify TB patients. TB laboratories, through their microscopy services, play a crucial role in the diagnostic process and are considered an integral part of TB control services. By inviting managers of national laboratory services and TB programmes, WHO recognizes the key role of TB laboratories and emphasizes the importance of an effective mechanism of collaboration. Issues of quality control of diagnostic services are as important for TB programme managers as they are for managers of laboratory services. In this context, I welcome the recent publication of new guidelines for external quality assessment, produced jointly by WHO and its technical partners.

As we have stepped up our TB control activities, it is important to monitor progress and ensure that we remain on track towards the Regional targets. TB programs are often struggling to find the resources to carry out their monitoring and supervision activities. Important lessons can be learned from countries that have succeeded in implementing effective monitoring and supervision

activities. This meeting will also be an excellent opportunity to learn from the experiences in national TB control programmes reviews and the respective roles of national governments and their partners in the review process.

Another area that requires our full attention is TB drug management. Without TB drugs no TB control programmes can expect to effectively address the TB burden. TB programmes managers are instrumental in the management of the supply of TB drugs. Many problems related to drug shortages have their roots in inadequate management of the logistic aspects of drug supply.

I hope that by the end of this meeting, countries, through their laboratory and TB programmes managers, will have prepared a plan of action for 2003 that addresses the key issues that will be discussed during the meeting. I would like to assure you that WHO is ready to provide countries with the technical support necessary to progress further on the road towards the Regional targets. WHO will work with partners to ensure that the financial means to reach the targets can be secured.

I want to express my appreciation to you, managers of national laboratory services and TB programmes. With the efforts you make in your respective countries, I believe you will make a major contribution to alleviating the TB problem in our Region

I want to conclude by expressing my gratitude to the Government of the Philippines for hosting this important meeting. I would also like to thank our partners for coming to this meeting in support of TB control in the Region.

I wish everyone a productive and successful meeting and hope that through this meeting, our already strong political commitment and partnership will be further strengthened at all levels to fight tuberculosis and poverty in the Western Pacific.

Thank you.

## QUESTIONNAIRE ON TB DRUG MANAGEMENT

QUESTIONS	CAM	CHN	MOG	LAO	PNG	PHL	VTN
<b>Regulatory perspectives</b>							
National drug policy exists	1	1	1	1	1	1	1
Good manufacturing practices exist	?	1	0	0	N/A	1	1
Quality control is performed on anti-TB drugs	1	1	1	1	0	1	1
Drug registration is regulated	1	1	1	1	0	1	1
<b>Drug selection</b>							
Drug selection is made by NTP staff	1	1	1	1	1	1	1
Fixed dose combinations are included in anti-TB drug registration	1	1	1	1	0	1	1
<b>Drug quantification</b>							
Drug estimates are based on TB notification or consumption	1	1	1	?	1	1	1
Buffer stock in the country is for 6 mths to 1 year	1	0	1	0	0	1	1
Anti-TB drugs are part of essential drugs programme	1	1	1	1	0	1	1
<b>Drug procurement</b>							
TB staff are responsible for drug procurement	0	1	1	1	0	0	1
Principles of good procurement practices are followed (selection, quantification, competitive procurement methods, supplier selection and qualification, QA, monitoring and supervision)	?	1	1	?	1	1	1
Tender process is transparent	1	1	0	1	0	1	1
Drugs are procured once a year	1	1	1	1	0	1	1
Delivery time is more than a year (from signing of contract to delivery at port)	0	0	0	0	1	1	1
Duties are paid on drug import	0	1	0	1	0	1	1
<b>Drug storage and distribution</b>							
Good storage practices exist (stock cards, inventory, expiry, safe and clean place etc)	1	1	1	1	0	1	1
Stock reports are standardized	1	1	0	1	0	1	1
Stocks are reported to higher level quarterly	1	1	0	1	1	1	1
Drugs are distributed quarterly or every 6 months	1	1	1	?	1	0	1
FEFO rule is followed	1	1	1	1	1	1	1
<b>Drug financing</b>							
Drug budget is sufficient	0	0	1	1	1	1	1
Donor funding for drugs exists	1	1	1	1	0	0	1
Anti-TB drugs are free for all TB patients	1	0	1	1	1	1	1
<b>Drug use</b>							
Fixed dose combinations are used	1	0	1	1	0	0	0
Anti-TB drugs are available in private pharmacies	1	1	1	1	1	1	1
Second line drugs are available in NTP	0	0	0	0	0	0	0
<b>Monitoring and supervision</b>							
Drug management is included in regular supervision	1	1	1	1	0	1	1
Standardized monitoring practices are implemented	1	1	1	1	0	1	1
NTP drug management form exists	1	1	1	1	0	1	1
Drug audits are performed	1	1	1	1	1	1	1



**Table 1 - Constraints** Country: CAMBODIA

Key Constraints
Limited DOTS coverage and involvement of the community and private providers in DOTS
Lack of coordination and inadequate intervention for TB/HIV issues
Limited staff capacity and motivation
Inadequate TB laboratory capacity

**Table 2 - Action Plan 2003** Country: CAMBODIA

**Constraint:** Limited DOTS coverage and involvement of community and private providers in DOTS  
**Objective:** Improve accessibility to DOTS services

Activities	Who will implement	When to implement (start & end date)	Support required		
			National and lower levels	WHO	Other Partners
Expand DOTS to HC	All level of NTP	From January	Yes	Financial	Financial Technical
Community DOTS where DOTS HC exist	Provincial, District	Early 2003	Yes	Financial Technical	ID
DOTS for special segment of population (prisoners, factory workers, military)	NTP, Military-police services	Early 2003	Yes	ID	ID
PPM DOTS pilot in Phnom Penh	NTP, Phnom Penh Health Municipality	From January	Yes	ID	
Operational Research	NTP		Yes		Financial Technical
Promote IEC activities and social mobilization	All level	Ongoing	Yes	Financial Technical	Financial Technical



Table 3 - Action Plan 2003 Country: CAMBODIA

**Constraint:** Lack of coordination and inadequate intervention for TB/HIV issues  
**Objective:** To provide appropriate prevention and care

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
HIV sero-prevalence among TB patients	All level	January -February	Yes	Financial Technical	Financial Technical
Strengthen TB/HIV activities in CENAT	CENAT	Ongoing	National	ID	ID
Implementation of TB/HIV framework piloting in 4 Hot spot sites	NTP-NAP, 2 provinces and 2 Municipalities	April to December	Yes	ID	ID
TB/HIV working group meetings every quarter	CENAT/NCHAD	Ongoing	Yes		ID

Table 4 - Action Plan 2003 Country: CAMBODIA

**Constraint:** Limited staff capacity and motivation  
**Objective:** To improve human resource capacity

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Training for new staff (local)	Central and province	Second quarter	Yes		Financial Technical
Refresher training for existing personnel (local)	ID	Ongoing	Yes	Financial Technical	Financial Technical
International training		Depend on training schedule		Financial	Financial
In-country study visits	CENAT	Every quarter	Yes		Financial
Overseas study tours / conference				Financial	Financial
Staff incentives					

Table 5 - Action Plan 2003 Country: CAMBODIA

**Constraint:** Inadequate TB lab. capacity  
**Objective:** To strengthen and improve TB lab. network and service quality

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Revise lab manuals and guidelines including EQA in English and Khmer	CENAT	First quarter	National	Financial Technical	Financial Technical
Implement the New EQA system including field visit	CENAT and province	From 1 <sup>st</sup> Q	Yes	Technical	ID
Curriculum	CENAT		Yes		Financial Technical
Training/WS (new-staff, refresher, DST, culture, EQA,...)		Depend on training schedule		Financial	Financial Technical
Include smear-making session in all kinds of DOTS training	All level	Ongoing	Yes		
Ensure good quality microscope and social mobilization	TB unit	Ongoing	Yes		Financial Technical

**Table 1 - Constraints**      **Country: CHINA**

Key Constraints
Insufficient commitment by some local governments to implement DOTS
Insufficient human resource
Lower case detection rate, insufficient cooperation between TB control institutions and other health care providers
Inadequate TB laboratory capacity

**Table 2 - Action Plan 2003**      **Country: CHINA**

**Constraint:** Insufficient commitment by some local governments to implement DOTS  
**Objective:** Improved and strengthened government commitment, through the use of a national evaluation of the implementation of the 10-year National TB Control Plan

Activities	Who will implement	When to implement (start & end date)	Support required		
			National and lower levels	WHO	Other Partners
Develop the standards for evaluating the National plan	MOH, MOF, SDPC, CDC	Jan	National	TA	
Workshop on evaluation of national plan	MOH, MOF, SDPC, CDC	March	CDC		
Self-evaluation of NTP implementation by provincial level	BOH, BOF, DPC, TB institution of local levels	Apr-June	Provincial and lower		
Field visit by central level	MOH, MOF and SDPC, CDC	July-Sept	Local	Financial support	Financial support
Report summary results of evaluation at all levels	MOH, MOF and SDPC, CDC	Oct		TA	
Summary meeting of evaluation	ICC, MOH, MOF and SDPC, CDC	Dec			

Table 3 - Action Plan 2003 Country: CHINA

Constraint: Insufficient human resource

Objective: Strengthened capacity of staff and increased number of experienced staff at central and provincial levels

Activities	Who will implement	When to implement (start & end date)	Support required		
			National and lower levels	WHO	Other Partners
Establish a national TB consultant team	MOH and CDC	Jan-June	National	TA & financial support	Financial support
Increase experienced staff at central and provincial level	MOH, CDC and provincial level	Jan-Dec	National & provincial	TA & financial support	Financial support
Training for new consultant team and central staff	MOH, CDC	Jan-Jul Nov-Dec	National	TA	

Table 4 - Action Plan 2003 Country: CHINA

Constraint: Low case-detection rate because of insufficient cooperation between TB control institutions and other health care providers.

Objective: Increased case detection rate through a strengthened hospital referral system

Activities	Who will implement	When to implement (start & end date)	Support required		
			National and lower levels	WHO	Other Partners
Training courses for general hospital staff on TB referral	Central and provincial CDC	Jan-Apr (3 days for each training)	Local levels		Financial support
Pilot study on improving hospital/TB dispensary collaboration	Central and provincial CDC	Jan-May	Local levels	TA	Financial support
Workshop to expand pilot experience and central staff	Central CDC	Jun (7 days) Nov-Dec	National level	Financial support	Financial support
Develop action plan to expand implementation unit	Individual implementation unit	Jul-Aug	Higher level		

Table 5 - Action Plan 2003 Country: CHINA

**Constraint:** Poor quality of DOTS implementation in some areas as DOTS is expanding rapidly  
**Objective:** Improved quality of DOTS implementation

Activities	Who will implement	When to implement (start & end date)	Support required		
			National and lower levels	WHO	Other Partners
Develop new training materials and evaluation methodology	Central CDC	Jan-May	National	TA, Guidelines, Financial support	
Training the trainers on use of new training materials	Central and provincial levels	May-Dec	National, Provincial, Prefecture	TA, Financial support	
Evaluate the effectiveness of training	Central and provincial levels	Sept-Dec	All levels	TA	
Improve QA of sputum microscopy: EQA: Develop the manual for China	Central CDC unit	Jan-Feb	National	TA, Financial support	
Improve QA of sputum microscopy: EQA: Implementation	All levels	Jul-Dec	All levels	TA	

**Table 1 - Constraints**      **Country: LAO PDR**

Key Constraints
DOTS coverage still to reach 100%
TB laboratory system requires development
Difficulty in access to TB services

**Table 2 - Action Plan 2003**      **Country: LAO PDR**

**Constraint:** DOTS coverage still to reach 100%  
**Objective:** Aim for almost 100% DOTS coverage by 2005

Activities	Who will implement	When to implement (start & end dates)	National and lower levels	Support required	
				WHO	Other Partners
Train staff from 2 provinces and 15 districts in DOTS implementation	NTP, provincial & district staff	Q1 2003	Trainers	Technical & financial support; provide consultant	DFB funding 7,000 USD
Provide equipment, drugs and transport for TB control	NTP, provincial & district staff	Q1-Q4 2003	Salary & operational costs	Equipment	DFB drugs, reagents, equipment & operational costs
Strengthen political commitment & advocacy (including World TB Day)	NTP, mass media and other agencies	Q1 2003	Technical & personnel input	Advocacy kit & operational costs 6,000 USD	
Supervision & monitoring	NTP, provincial & district staff; WHO & DFB personnel	Q1-Q4 2003	Technical & personnel input	Technical & personnel input; operational costs	Technical & personnel input; operational costs
Retrain staff from 2 provinces	NTP, provincial & district staff	Q3 2003	Trainers	Technical & financial support	DFB funding 7,000 USD
Inclusion of prison and military health services in DOTS	NTP in collaboration with military & prison health services	Q1-Q4 2003	Technical & personnel input		Included in other training courses

**Table 3 - Action Plan 2003** Country: LAO PDR  
**Constraint:** TB laboratory system requires development  
**Objective:** Improve quality control and EQA of TB laboratory services

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Improve NRL facilities: 1. Improve lab building 2. Adequate microscopes & other equipment	NTP & Ministry of Health	Q4 2003	Personnel & technical support	Technical & financial support	Technical & financial support
Develop a National Laboratory Manual, including QC and EQA elements	NTP	Q1 2003	Technical and logistic support	Provide consultant, technical co-operation & funding	Technical support
Refresher training for lab technicians	NTP and provincial staff	Q2 2003	Personnel & technical support	Financial support	Financial support
Strengthen existing EQA program and introduce LQAS methodology: 1. national workshop (NTP and provincial lab staff) 2. provincial workshops (Provincial & district TB program & lab staff) 3. pilot introduction to selected provinces and districts 4. Supervision & monitoring	NTP including lab staff  NTP & provincial lab staff	Q2 2003 Q3-Q4 2003 Q4 2003 On-going	Technical and logistic support	Provide consultant Funding	Technical & financial support

Table 4 - Action Plan 2003 Country: Lao PDR

Constraint: Difficulty in access to TB services  
Objective: Improved access to TB services

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Community education campaign and materials	Provincial TB co-ordinator	Q1-Q4 2003	Personnel & technical support	Technical & financial support	Financial support
Training of village health volunteers in DOTS	Provincial and district TB co-ordinator	Q1-Q4 2003	Personnel & technical support		Financial support
Advocacy by radio & TV (eg. puppet show)	NTP, Ministry of Information and mass media	Q1-Q4 2003	Personnel & technical support	Technical & financial support	
Inclusion of TB in school curriculum	NTP in collaboration with Ministry of Education at national & provincial levels	2003-2004	Personnel & technical support		
Inclusion of mass organisations (eg. Lao Women's Union)	NTP in collaboration with Women's Union & other community-based organisations	2003-2004	Personnel & technical support	Provide consultant Funding	Technical & financial support
Operational research on ways to improve access for remote & minority groups	NTP	Q3 2003	Personnel & technical support	Consultant and financial support	



**Table 1 - Constraints**      **Country: Mongolia**

Key Constraints/Priority Issues
1. Mechanism to implement Global Fund project not in place
2. Poor quality of DOTS implementation in rural areas
3. No system to maintain quality of laboratory services

**Table 2 - Action Plan 2003**      **Country: Mongolia**  
**Constraint/Priority issue 1:**      **Mechanism to implement Global Fund project not in placed**  
**Objective:**      **To develop mechanism to ensure effective implementation of Global Fund project**

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
1. Prepare 6 month workplan and budget for submission to Global Fund (step 1)	NCCD/MATA	January-February	I	Technical support to develop workplan	GFATM
2. Prepare quarterly milestones for full two years (step 2)	NCCD	3 <sup>rd</sup> quarter	I	Technical support to develop milestones	GFATM
3. Organize targeted case detection and treatment activities among the vulnerable groups, including prisoners, unemployed, migrant workers, nomadic people, homeless people - conduct operational research related to TB and poverty (e.g., delay analysis, defaulter analysis, etc.)	NCCD NCCD, PHC NCCD	March-July March-May July-September	National support to selected area  National support to selected areas		GFATM UNDP UNICEF

**Table 3 - Action Plan 2003** Country: Mongolia  
**Constraint/Priority Issue 2:** Poor quality of DOTS implementation in rural areas  
**Objective:** To improve quality of DOTS implementation in rural areas

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
1. Make agreement with aimag governors for improving the participation in TB activities - Improve TB suspected sputum transport system from soums to aimags	NCCD and Governors NCCD, PHC	Jan			GF
		Jan-Decr			
2. Collaborate with poverty projects in Mongolia	MOH MOH	Jan	From national to soum level		UNDP, WB
		Jan			
3. Train family doctors on NTP policies and strategy, including for sputum collection -Update and provide manuals and guidelines for family and soum doctors -Increase of volunteers for implementing rural DOTS	NCCD	Apr-Sep	From national to soum level	Technical support to develop guidelines for volunteers	GF
		Feb	From national to soum level		
4. Training of supervision and inspection health officers - Regular supervision and monitoring at soum level by health officers	NCCD Soum	3 <sup>rd</sup> quarter			
		Quarterly	From national and soum level		GF
5. Revise and update IEC materials for community, to reduce stigmatization related to TB -To advertise through TV, radio broadcasting and newspaper	MOH, NCCD MOH, NCCD	Feb			GF Government GF
		Quarterly			
6. Send 1 participant each to attend IUATLD/WHO training courses in Hanoi and HCMC	WHO	April-May, Aug-Sept		Training program	IUATLD

**Table 4 - Action Plan 2003**      **Country: Mongolia**  
**Constraint/Priority Issue 3:**    **Inadequate system for maintaining quality of laboratory services**  
**Objective:**                            **To strengthen the system to maintain the quality of laboratory services**

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
1. Revise EQA guidelines to include updated procedures	NRL	2 <sup>nd</sup> quarter		Technical support	
2. Conduct basic training for new TB laboratory technicians	NRL	1 <sup>st</sup> and 3 <sup>rd</sup> quarter	NRL to support other selected areas		Government
3. Conduct refresher training for TB laboratory technicians	NRL	2 <sup>nd</sup> and 4 <sup>th</sup> quarter	National NRL to support selected areas		GFATM
4. Conduct on-site evaluation for improved supervision and monitoring	NRL laboratory supervisor	quarterly			GFATM
5. Integrate laboratory services in newly established TB units in remote areas	NRL and provincial health department in 1 aimag	2 <sup>nd</sup> quarter	Salary-local budget		GFATM

**Table 1 - Constraints**      **Country: Papua New Guinea**

Key Constraints
Weak central unit, unable to provide adequate support to provinces and districts
Insufficient capacity of human resources
Inadequate laboratory services, including shortage of laboratory staff at peripheral level

**Table 2 - Action Plan 2003**      **Country: Papua New Guinea**

**Constraint:** Weak central unit, unable to provide adequate support to provinces and districts  
**Objective:** Strengthening of central (regional-4) level capacity

Activities	Who will implement	When to implement (start & end date)	Support required		
			National and lower levels	WHO	Other Partners
To identify and recruit three TB officers in NTP	Director D/C	Q1/2003		SSA	

Table 3 - Action Plan 2003 Country: Papua New Guinea

Constraint: Insufficient capacity of human resources  
Inadequate laboratory services

Objective: To increase the number of trained health staff (training, supervision, monitoring)  
To increase the laboratory capacity, including developing of EQA and improve access to laboratory services

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
To conduct TOT in 12 remaining provinces	NDOH	Q1-Q4 2003	GOPNG	LC	HSIP
To conduct supervision to DOTS implemented provinces	NDOH	Q1-Q4 2003	GOPNG	LC	HSIP
To conduct 2 refresher trainings for laboratory staff at provincial level	NDOH	Q1-Q4 2003	GOPNG	LC	HSIP
To conduct one laboratory workshop on systematic introduction of EQA	NDOH	2003	GOPNG	LC	HSIP
Revision and adoption of laboratory guidelines on EQA	NDOH	Q1-Q4 2003	GOPNG	LC	
To procure necessary equipment and consumables for selected laboratories	NDOH	Q1-Q4 2003	GOPNG	SE	
Printing of stationeries, protocol and training manuals	NDOH	Q1 2003	GOPNG	SE	HSIP

**Table 1 - Constraints** Country: Philippines

Key Constraints
Inadequate monitoring and supervision at all levels
Existing laboratory network
Non implementation of DOTS by private sector

**Table 2 - Action Plan 2003** Country: Philippines  
Constraint-1: Inadequate monitoring and supervision at all levels  
Objective: Improve the monitoring and supervision at all levels

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Develop a national monitoring plan	National TB Core team	January '03	Consolidated regional plan during the workshop		
Review of the monitoring system and 2-day Workshop to discuss findings	National and Regional TB core teams	February '03	TA and funding	TA	TA; Funding
Implementation/conduct of the monitoring system	National and Regional TB core teams	April '03 - Nov. '03	Budget from the national	TA and financial augmentation	TA and financial augmentation
Conduct the regular program review	National TB core team CHD - quarterly Province/City - Quarterly	July and December '03	National - Manpower support Local - Manpower support	TA and financial augmentation	TA and financial augmentation

Table 3 - Action Plan 2003-2005 Country: PHILIPPINES

Constraint-2: Existing laboratory network

Objective: To decentralise some national reference laboratory training activities to regional level

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
ADVOCACY: Involving regional office in planning activities for strengthening laboratory network: Devolving training activities to regional laboratories	NRL, JICA, TB Control Office, WHO	Started in some regions; wish to complete by end March 2004	NRL, Regional laboratories		NDM, JICA, USAID, World Vision
Current review of country wide QA activities	NRL,	Begin Nov 02; Completion & reporting by March 03 May 03	NRL		JICA, NDM
National Workshop: For Regional Reference Laboratories Training at NRL Training of core Regional Med Techs trainers "Train the Trainers" to conduct basic microscopy course	NRL, TB Control Office, JICA			Funding	

**Table 4 - Action Plan 2003** Country: PHILIPPINES  
**Constraint -3: Non-implementation of DOTS by private sector**  
**Objective: To establish PPM DOTS centers**

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Identification of pilot PPM DOTS sites	TB division of Infectious Disease Office (IDO), PhilCAT, Partners	Feb. '03	Manpower, meeting needs	None	None
Installation of PPM DOTS (Advocacy, symposium, etc.)	TB Division of IDO, PhilCAT, CHD & partners	April to June '03	National - Manpower, PPM DOTS guidelines	Budget, TA, Advocacy /Info materials	Budget, TA, Advocacy /Info materials
Monitoring supervision	TB Division, PhilCAT	Sep to Nov '03	National - manpower	Budget & TA	Budget & TA

**Table 5 - Action Plan 2003** Country: PHILIPPINES  
**Constraint: Inaccessible health service among the poor (rural setting)**  
**Objective: To conduct an operational research on the socio-economic determinants of TB in the rural areas.**

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
To coordinate with partner in the conduct of the research agenda.	TB Division and research arm of DoH	July '03	Technical assistance	Technical assistance	MDM technical assistance
Finalization of proposal	TB Division and research arm of DoH	October '03	Technical assistance	Technical assistance	Technical assistance



**Table 1 - Constraints**      **Country: Viet Nam**

Key Constraints
Constraints as low case detection in mountainous, remote areas, boundary, islands areas and vulnerable groups: prisoners, homeless people and illegal residents, people in institutions and fast developing private medical and pharmaceutical sectors have been identified and activities to address these problem are described in the development plan 2001-2005. Funding is secured through Government, World Bank and Dutch ODA.
Emerging HIV epidemic causing increasing numbers of TB/HIV patients

**Table 2 - Action Plan 2003**      **Country: Viet Nam**

**Constraint:** Emerging HIV epidemic causing increasing numbers of TB/HIV patients  
**Objective:** Development of national HIV/TB framework

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Seminar on HIV epidemic and increasing TB/HIV with head of provincial TB program and HIV/AIDS program	NTP, HIV/AIDS and MOH, WHO	March 2003	Technical assistance		CDC, KNCV
Establish committee to develop national policy and strategy on TB/HIV	MOH	April 2003	NTP and MOH		Dutch Government
Develop national framework for TB/HIV	Committee	April-July		Technical assistance	
Develop national guideline for prevention, treatment and care of PLWHA and TB patients	Committee	April - July	NTP	CDC, KNCV	
Pilot project to 3 high HIV prevalence provinces	NTP, AIDS program	Second half 2003	Provincial TB centre and AIDS program		

**Table 3. Constraints**      **Country: Viet Nam**

Key Constraints
1. Insufficient development of microscopy network in remote areas.
2. Insufficient numbers and qualifications of intermediate level staff and laboratory facilities in Mekong delta provinces
3. Current sampling method for EQA is not cost effective.

**Table 4 - Action Plan 2003-2005**      **Country: Viet Nam**

**Constraint 1: Insufficient development of microscopy network in remote areas.**  
**Objective: To develop microscopy network in remote areas.**

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Train new technician at sub district level.	Provincial TB Centre	From March to June 2003	National Level: Technical support		Dutch Government
Supply laboratory equipment to 50 new inter communal polyclinic (microscope, materials etc).	NTP, PTCs and DTU	From June to December 2003	National Level		Dutch Government

**Table 5 - Action Plan 2003-2005** Country: Viet Nam

**Constraint 2:** Insufficient number and qualifications of intermediate level staff and lab facilities in Mekong delta provinces.  
**Objective:** To increase number of staff and at intermediate level.

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Increase commitment of the Provincial government to allocate more staff.	Local Governor	Mid June 2003	National and Provincial Level: Ministry of Health		
Supply Provincial TB Unit with more equipment, which is of an improved quality.	NTP and Reference Laboratory	July/Aug 2003	National Level		
Improve qualification of staff by training courses.	NTP/PNT	2 <sup>nd</sup> half of 2003	National Level		

**Table 6 - Action Plan 2003-2005** Country: Viet Nam

**Constraint 3:** Current sampling method for EQA is not cost effective.  
**Objective:** Improve sampling method and QC to ensure they are cost effective.

Activities	Who will implement	When to implement (start & end dates)	Support required		
			National and lower levels	WHO	Other Partners
Hold workshop to discuss change of system and future planning.	NTP/NRL	Aug/Sep 2003	National Level	WHO support	
Develop new national QA guidelines.	NTP/NRL	2003/2004	National Level		
Train staff to use the new QA system.	NTP/NRL	2004	National Level	WHO support	
Implement new QA.	NTP/NRL	2004/2005	National Level		
Assess country laboratory network.	WHO	2003	National Level	WHO support	

### Proposed plan & activities in 2003 (for the discussion)



### Policy and partnership development

- 4<sup>th</sup> TAG (Technical Advisory Meeting): 3-5 June, Manila
- 4<sup>th</sup> ICC (Interagency Coordinating Committee): same as TAG
- Global Stop TB Board mt: ?
- Country study tour of partner agencies: 4 HBC

### Country support: Human capacity building

- Country level
    - OJT: Domestic / Inter-country
    - IUATLD/WHO course
      - Hochiminh course: 14 Apr – 2 May
      - Hanoi course: 25 Aug – 12 Sep
    - IUATLD Conference
      - Global conf: 29 Oct – 2 Nov, Paris
      - Eastern Region: 9-12 Apr, Kathmandu, Nepal
  - WHO country level
    - 2001: 2 staff (1\*)/CHN, PNG
    - 2002: 3 staff (2\*)/+ VTN icp
    - 2003: 7 staff (4\*)/+ CAM/CHN/PHL/Pacific
- \* local staff

### Country support: Laboratory service

- Strengthening laboratory services by
  - DOTS expansion
  - Strengthening/developing QA system
    - Adopting new EQA system
      - By 2003: ( ) countries
      - By 2004: ( ) countries
      - By 2005: ( ) countries
    - Support from RO/CO
      - STC for national guideline development
      - Training
      - Evaluation
  - Regional laboratory mt: > 2 times by 2005

### Country support: Technical support/mt & monitoring visit

- Global DEWG mt: 7-8 Oct, Hague
- Regional NTP managers mt:
  - Most likely annual / 2 options in 4Q 2003
- Technical support thru STC/LTS of WHO for various issues (ex: GFATM), in collaboration with other partners
- Joint programme review
  - Following success of PHL & CHN in 2002
  - CHN: at least once annually from 2003
  - ( ) countries in 2003

### Country support: Surveillance

- Prevalence survey
  - Cambodia: data analysis by ( )
  - Viet Nam: ( ) month
- Drug resistance survey
  - China: ( ) new provinces
  - Philippines: ( ) month

### Emerging issues: HIV/TB

- Regional framework for HIV/TB including HIV/TB surveillance
  - To be finalized by 2Q 2002
  - HIV/TB surveillance: 3Q 2003
- Pilot project for HIV/TB framework in Cambodia in collaboration with CDC/USAID, & JICA
- Global DOTS working group mt:
  - 2Q 2003
  - High HIV setting

### Emerging issues: PPM DOTS & DOTS plus

- Regional framework for PPM DOTS
  - To be finalized by 2Q 2002
- Expand pilot project for PPM DOTS in the Philippines:
  - 2-3 possible donors including USAID
  - ( ) provinces by 2003
- DOTS plus
  - Strengthen DOTS plus pilot project in the Philippines in collaboration with GLC
  - DOTS plus working group mt: 23-26 Apr, Seoul

### Other issues: Drug management & poverty

- New challenging areas for RO
- Drug management:
  - Regional plan for drug management in collaboration with PHA by 1Q 2003
- TB & poverty:
  - Regional plan for TB & poverty by 1Q 2003 w/poverty focal point

### Other issues: Advocacy – World TB Day


- 24 Mar 2003
- Global & Regional Theme: People with TB
- Global slogan: DOTS cured me. It will cure you too.
- Regional slogan: I beat TB. You can too.
- WPRO kit by early March
  - Useful if poster available earlier?

### Other issues: Advocacy – World TB Day

- 10 years anniversary of declaration of Global TB emergency (declared on 24 Mar 1993)
- 10 million are cured by DOTS globally since 1993
- Commemoration of "10 years – 10 million patients" proposed
  - At the fixed/same time, globally
  - At least 22 high TB burden countries
  - Possibly includes high level politicians

### Other issues: Advocacy – World TB Day

- Support requires: all 7 countries
  1. Photograph of a cured TB patient
  2. Interview questionnaire of the same patient (see Annex 1)
  3. Translation of the Regional slogan, i.e., "I beat TB. You can too." into local language




## Other issues: Advocacy – World TB Day

- Interview arrangement with translation: requires in 3 countries
  1. One field doctor who is responsible for diagnosis from one country
  2. One drug supply coordinator who is working for drug supply from one country
  3. One treatment partner field doctor or nurse from one country



## Conclusions

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- *To reach the 2005 target, i.e 100% DOTS coverage with 70% CDR & 85% Treatment success, 2003 - 2004 is a crucial period for the countries that need to expand DOTS.*
  - *Those countries that reached 100% DOTS coverage already may need **to** improve the quality of DOTS such as laboratory QA, **to** increase the accessibility of DOTS service and **to** implement DOTS in the hospitals or private sector in order to increase case detection.*